

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

In the Matter of )  
 )  
Annual Assessment of the Status of ) MB Docket No. 06-189  
Competition in the Market for the )  
Delivery of Video Programming )

**THIRTEENTH ANNUAL REPORT**

**Adopted: November 27, 2007**

**Released: January 16, 2009**

By the Commission: Chairman Martin, Commissioners Copps, and Adelstein issuing separate statements;  
Commissioners Tate and McDowell approving in part, dissenting in part, and issuing  
separate statements.

**TABLE OF CONTENTS**

Heading	Paragraph #
I. INTRODUCTION.....	1
A. Scope of This Report.....	2
B. Summary.....	4
1. The Current State of Competition: 2006.....	4
2. General Findings.....	5
3. Specific Findings.....	8
II. COMPETITORS IN THE MARKET FOR THE DELIVERY OF VIDEO PROGRAMMING.....	26
A. Cable Television Service.....	26
1. General Performance.....	27
2. Programming Services and Pricing.....	44
3. Financial Performance.....	46
4. Capital Acquisition and Disposition.....	51
5. Advanced and Other Services.....	54
B. Direct-to-Home Satellite Service.....	74
1. Direct Broadcast Satellite.....	74
2. Home Satellite or Large Dish Service.....	93
3. Satellite-Based Advanced Services.....	97
C. Broadband Service Providers.....	100
D. Broadcast Television Service.....	104
1. General Performance.....	104
2. Digital Television.....	107
E. Other Wireline Video Services.....	130
1. Local Exchange Carriers.....	130
2. Open Video Systems.....	135
3. Electric and Gas Utilities.....	136
F. Other Wireless Video Services.....	139

1. Private Cable Systems .....	139
2. Wireless Cable Systems .....	141
3. Commercial Mobile Radio Service and Other Wireless Providers .....	142
G. Other Entrants .....	150
1. Web-Based Internet Video .....	150
2. Home Video Sales and Rentals .....	164
III. MARKET STRUCTURE AND CONDITIONS AFFECTING COMPETITION .....	168
A. Market Structure and Ownership Issues .....	168
1. Competitive Issues in the Retail Market for the Distribution of Video Programming to Consumers .....	169
2. Competitive Issues in the Program Supply Market .....	177
B. Vertical Integration and Other Programming Issues .....	183
1. Status of Vertical Integration .....	183
2. Other Programming Issues .....	194
C. Other Competitive Issues .....	245
1. Competitive Developments in Small and Rural Markets .....	245
2. Competitive Developments in the MDU Market .....	250
3. Competitive Developments in Alaska and Hawaii .....	257
IV. TECHNICAL ISSUES .....	261
A. Navigation and Reception Devices .....	262
B. Emerging Technologies .....	270
V. FOREIGN MARKETS .....	282
VI. ADMINISTRATIVE MATTERS .....	290
APPENDIX A – List of Commenters .....	
APPENDIX B – Market Structure and Ownership Tables .....	
APPENDIX C – Vertical Integration and Other Programming Tables .....	

## I. INTRODUCTION

1. This is the Commission’s thirteenth annual report (“2006 Report”) to Congress on “the status of competition in the market for the delivery of video programming.”<sup>1</sup> Congress imposed this annual reporting requirement in the Cable Television Consumer Protection and Competition Act of 1992 (“1992 Cable Act”)<sup>2</sup> as a means of obtaining information on the of competition in the marketplace for the delivery of video programming.

<sup>1</sup> Section 628(g) of the Communications Act of 1934, as amended (the “Act”) requires the Commission to report annually on the status of competition in the video marketplace. 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); *2003 Report*, 19 FCC Rcd 1606 (2004); *2004 Report*, 20 FCC Rcd 2755 (2005); and *2005 Report*, 21 FCC Rcd 2503 (2006). See Communications Act of 1934 § 628(g), 47 U.S.C. § 548(g).

<sup>2</sup> Pub. L. No. 102-385, 106 Stat. 1460 (1992) (“1992 Cable Act”).

## A. Scope of This Report

2. Consistent with the statutory purpose, we report on developments in the marketplace for the delivery of video programming and on the factors that have fostered or impeded changes in the competitive environment over the past year. We present information and analysis regarding changes in the marketplace since the *2005 Report*, and we describe how those changes affect the current state of the marketplace. The information and analysis provided in this *Report* are based on information submitted by commenters in response to a *Notice of Inquiry* (“*Notice*”) in this docket,<sup>3</sup> publicly available data, and filings in various Commission proceedings.<sup>4</sup>

3. The marketplace for the delivery of video programming services is served by a number of operators using a wide range of distribution technologies. In Section II, we examine each of these delivery technologies, and the services provided over them, and we assess their ability to provide competitive services in the multichannel video marketplace. Specifically, we examine the cable television industry and other established multichannel video programming distributors (“MVPDs”), including direct broadcast satellite (“DBS”) providers, home satellite dishes (“HSDs”), and broadband service providers (“BSPs”), as well as broadcast television licensees. We also examine other wireline video providers, including local exchange carriers (“LECs”), which have initiated commercial services using copper-based, fiber, and hybrid-fiber coaxial cable distribution technologies for video programming; open video systems (“OVS”);<sup>5</sup> and electric and gas utilities. In addition, we address wireless video services, including services provided by private cable operators (“PCOs”), wireless cable systems using frequencies in the broadband radio and educational broadband services (“wireless cable”), and services offering video programming delivered over commercial mobile radio systems (“CMRS”) and other wireless providers. We also examine web-based Internet video services. Finally, we review home video sales and rentals. In Section III, we examine market structure and competition, evaluating ownership trends in the multichannel video marketplace, vertical integration between programming services and distribution systems, issues pertaining to access to programming, competitive issues in small and rural markets and multiple dwelling units (“MDUs”), and specific issues related to service in Alaska and Hawaii. We address numerous technical issues regarding navigation and reception devices and emerging services in Section IV. Finally, in Section V, we survey developments in foreign markets.

## B. Summary

### 1. The Current State of Competition: 2006

4. While competition in the delivery of video programming services has provided consumers with increased choice, better picture quality, and greater technological innovation, prices continue to outpace the general level of inflation.<sup>6</sup> DBS competition appears to have led cable operators

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<sup>3</sup> *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 21 FCC Rcd 12229 (2006) (“*Notice*”). Where possible, we requested data as of June 30, 2006. Appendix A lists commenters and the abbreviations by which they are identified herein.

<sup>4</sup> Although the *Notice* asked commenters to provide certain kinds of data and other information, we do not require commenters to do so, nor do we audit the data that are provided.

<sup>5</sup> OVS is one of the statutory classifications that LECs may use to enter the video marketplace. See Section II.E.2 *infra*.

<sup>6</sup> See ¶ 45 *infra*.

to add more programming services to their channel line-ups, it has not constrained cable prices as wireline competition has done.<sup>7</sup> We find that almost all consumers are able to obtain programming through over-the-air broadcast television, a cable service, and at least two DBS providers. In some areas, consumers also may have access to video programming delivered by emerging technologies, such as digital broadcast spectrum, fiber-to-the-home facilities, or web-based Internet video. In addition, through the use of advanced set-top boxes and digital video recorders, and the introduction of new mobile video services, consumers are now able to exercise more control over what, when, and how they receive information. Further, MVPDs of all kinds are offering nonvideo services in conjunction with their traditional video services.

## 2. General Findings

5. The MVPD marketplace has continued to grow. While the largest MVPD remains a cable operator, cable subscribership declined slightly since the *2005 Report*. The second and third largest MVPDs are DBS operators.<sup>8</sup> In addition, other delivery technologies continue to serve small numbers of subscribers in limited areas. LECs, such as AT&T and Verizon, have expanded the areas where they provide facilities-based video services in the last year, and continue to partner with DBS providers to offer video service.

6. Large numbers of consumers continue to subscribe to cable service, which approximately 68 percent of all MVPD households purchase. Cable operators have responded to the growth of DBS and its competitive service offerings by, among other things, expanding their channel line-ups and bundling video service with other service offerings, such as high-speed Internet access service or telephone service. The number of cable subscribers selecting digital tiers and advanced services not offered by DBS continues to grow. DBS operators have responded by offering local broadcast channels, additional sports and international programming, and advanced set-top boxes with digital video recorder (“DVR”) capabilities. Broadband service providers continue to offer a “triple play” of video, voice and Internet access service, which is proving to be price-competitive with cable. In addition, LECs are upgrading their traditional copper facilities to digital subscriber line (“DSL”) and fiber-based platforms to offer a suite of video, telephone, and data services.

7. Existing competitors to incumbent cable operators and potential new entrants into the video marketplace assert that there continue to be barriers to entry. Overbuilders, including BSPs and

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<sup>7</sup> *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*, 21 FCC Rcd at 15088 (2006) (“*2005 Cable Price Survey Report*”).

<sup>8</sup> We report information as of June 30, 2006. Subsequently, Adelphia’s cable systems were acquired by Comcast and Time Warner. See *Applications for Consent of Assignment and/or Transfer of Control of Licenses from Adelphia Communications Corporation to Time Warner Cable Inc., and from Adelphia Communications Corporation to Comcast Corporation*, 21 FCC Rcd 8203 (2006) (“*Adelphia Order*”). In this *Report*, we do not double-count subscribers and, if a cable system is owned by more than one MSO, its subscribers are assigned to the MSO with the largest ownership stake. Using this methodology, following the Adelphia transactions, Time Warner became the third largest MVPD and EchoStar became the fourth. Under our attribution rules, however, Time Warner is the second largest MVPD today when its attributable interest in the Bright House cable systems is factored in.

LECs, describe the local franchising process as an impediment to entry into the video marketplace.<sup>9</sup> In particular, they are concerned about build-out requirements mandating that a new entrant overbuild all of the geographic area served by the cable operator and “level playing field” regulations requiring them to match all of the concessions previously provided by the incumbent cable operator. We note that in December 2006 the Commission adopted rules pursuant to Section 621(a)(1) of the Act to ensure that a local franchising authority does not “unreasonably refuse to award an additional competitive franchise.”<sup>10</sup> Cable’s competitors also maintain that entry and competition are inhibited by: (1) difficulties in obtaining valuable programming, especially regional sports, as a result of the use of exclusive contracts and the terrestrial exception to the program access rules;<sup>11</sup> and (2) difficulties in gaining access to MDUs as a result of the existence of long-term exclusive contracts between MVPDs and MDU owners.

### 3. Specific Findings

8. The number of TV households and the number of MVPD subscribers increased in the past year. As of June 2006, there were 110.2 million TV households, compared to 109.6 million in June 2005. Of that number, approximately 95.8 million TV households, or almost 87 percent of TV households, subscribe to an MVPD service, as compared to 94.2 million, or approximately 86 percent as of June 2005. Cable serves the largest percentage of MVPD subscribers, but cable’s share of the MVPD marketplace continues to decline. As of June 2006, 68.2 percent of MVPD subscribers received video programming from a franchised cable operator, as compared to 69.4 percent as of June 2005.<sup>12</sup> DBS subscribers comprise the second largest group of MVPD households, representing 29.2 percent of total MVPD subscribers as of June 2006, compared to 27.7 percent in June 2005. The competitive presence of MVPDs other than cable or DBS declined slightly. The number of MVPD subscribers choosing all other delivery technologies decreased, representing 2.6 percent of all subscribers in June 2006, as compared to 2.9 percent in June 2005.<sup>13</sup>

9. In 2006, the four MVPDs with the largest subscribership served 63 percent of all MVPD subscribers, the same percentage as in 2005. The share of subscribers served by the top ten MVPDs decreased slightly, from 88 percent in 2005 to 87 percent, in 2006.<sup>14</sup> Relatively few consumers have a second wireline alternative, such as an overbuild cable system. BSPs and OVS providers, which typically operate overbuild systems, reported no appreciable change in subscribership since last year, maintaining

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<sup>9</sup> An overbuilder is an MVPD that builds a second cable system “over” one that already exists.

<sup>10</sup> *Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984 as amended by the Cable Television Consumer Protection and Competition Act of 1992*, 22 FCC Rcd 5101 (2007).

<sup>11</sup> 47 U.S.C. § 548.

<sup>12</sup> This percentage is the result of adding the number of subscribers to all MVPD services and calculating the percentage of this total represented by cable subscribers. See Appendix B, Table B-1.

<sup>13</sup> *Id.*

<sup>14</sup> See Appendix B, Tables B-3 and B-4.

total subscribership of approximately 1.4 million.<sup>15</sup> However, LECs have expanded their facilities-based video service, and now serve over 245,000 subscribers.<sup>16</sup>

10. **Cable Service.** The number of basic cable subscribers has fluctuated slightly since the last *Report*. From June 2005 to year-end 2005, the number of basic cable subscribers declined slightly from 65.4 million to 65.2 million. From the end of 2005 to June 2006, the number of basic cable subscribers increased slightly to 65.3 million.<sup>17</sup> Kagan, however, projected that the number of basic cable subscribers would increase to 65.4 million basic subscribers at year-end 2006, and continue to increase year after year for the next decade.<sup>18</sup> Cable penetration (*i.e.*, subscribers/homes passed) declined in 2005, as the number of subscribers decreased and the number of homes passed increased.<sup>19</sup>

11. Cable revenue was projected to grow 11.1 percent in 2006, to \$72.9 billion.<sup>20</sup> Much of the increase in revenue comes from advanced services, especially high-speed Internet service and digital cable services, and from higher cable rates. In addition to traditional analog video services, many cable operators offer subscribers one or more advanced video services, including digital video, video-on-demand, digital video recorders, and high-definition television. Cable operators also offer nonvideo advanced services, including high-speed Internet access and telephony (circuit-switched telephony and/or voice over Internet protocol telephony). At year-end 2005, according to industry reports, almost all cable homes passed were offered digital video services, approximately 93 percent were offered high-speed Internet access services, and 73 percent were offered telephony service (both VoIP and circuit-switched).<sup>21</sup>

12. **Direct-to-Home (“DTH”) Satellite Service (DBS and Home Satellite Dish (“HSD”)).** As of June 2006, almost 28 million U.S. households subscribed to DBS service.<sup>22</sup> This represents an increase of 7.1 percent over the approximately 26.1 million DBS subscribers reported last year. DBS accounts for approximately 29.2 percent of all U.S. MVPD subscribers. DBS operators continue to add the signals of local broadcast television stations (“local-into-local service”). In 175 of 210 television markets (*i.e.*, “designated market areas,” or “DMAs”), covering 97 percent of all U.S. TV households, at least one DBS provider offers local-into-local service. As of June 2006, there were 111,478 households authorized to receive HSD service, a decrease of approximately 46 percent from the 206,358 we reported last year.<sup>23</sup>

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<sup>15</sup> This year, we report separately on BSPs and OVS providers. However, separate subscriber data are not available for OVS. See Sections II.C. and II.E.2.

<sup>16</sup> See Appendix B, Table B-1.

<sup>17</sup> See Table 1. See also Appendix B, Table B-1.

<sup>18</sup> Kagan Research, LLC, *Pay TV Subscriber History*, Broadband Cable Financial Databook, Aug. 2006 (“Cable Databook”), at 11.

<sup>19</sup> See ¶ 30, Table 1.

<sup>20</sup> See ¶ 44, Table 5.

<sup>21</sup> See Section II.A.4.

<sup>22</sup> See Appendix B, Table B-1.

<sup>23</sup> See Section II.B.1.

13. **Other Wireline MVPD Services.** For the purposes of this report, we consider BSPs to be newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network. As of June 2006, BSPs served approximately 1.4 million subscribers, representing 1.5 percent of all MVPD households.<sup>24</sup> New OVS activity has been limited, but the Broadband Service Providers Association (“BSPA”) states that some of its members have converted cable franchises to OVS franchises to eliminate build-out requirements.<sup>25</sup> Electric and gas utilities also provide MVPD and other services. An American Public Power Association (“APPA”) survey indicates that 100 of its 2,000 association members provide video services, most using hybrid fiber-coaxial architecture, although some APPA members are using fiber-to-the-home architecture. APPA reports that the average subscriber penetration rate for its members offering video service was 50 percent of the homes passed, and that 40 percent of these subscribers purchase a combination of video and high-speed Internet access service. APPA also asserts that incumbent cable operators lower prices or offer additional services in response to utility competition. In addition, a number of electric and gas utilities are offering, or plan to offer, video using broadband over power line (“BPL”) technology.<sup>26</sup>

14. In the last year, LECs, most notably Verizon and AT&T, have expanded the areas where they provide facilities-based video services. LECs continue to focus on offering bundles of services, including local and long distance telephone service, high-speed Internet service, and video programming services. In order to offer these services, LECs are entering into joint ventures with MVPD service providers, such as DBS operators, or are providing MVPD service over their own recently upgraded facilities. Some LECs are deploying fiber-to-the-home (“FTTH,” also known as fiber-to-the-premises, or “FTTP”) infrastructure. In addition, LECs are increasingly utilizing Internet Protocol Television (“IPTV”) technologies. Verizon’s FTTH network, marketed under the brand name “FiOS,” allows delivery of multichannel video services, in addition to telephony and high-speed Internet access service. At the end of 2006, Verizon reported that it offered video programming via FiOS to more than 2.4 million households in 200 cities in 10 states and served 207,000 subscribers.<sup>27</sup> At the end of 2006, in addition to co-marketing EchoStar’s Dish Network DBS service, AT&T had deployed its “U-verse” product in approximately 11 cities in Texas, California, Indiana, and Connecticut. BellSouth notes that it holds 20 franchises to provide cable overbuild service in its local telephone service area and its facilities-based video service is available to 200,000 households.<sup>28</sup> It also continues to have a marketing alliance with DIRECTV to offer digital satellite service.<sup>29</sup> Qwest resells DIRECTV’s service and also is pursuing opportunities to provide bundles of services, including various technological configurations of video services such as satellite, IPTV, and video delivered via wireless telephones.

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<sup>24</sup> See Appendix B, Table B-1. See also Section II.C.

<sup>25</sup> See Section II.E.2.

<sup>26</sup> See Section II.E.3.

<sup>27</sup> See Section II.E.1.

<sup>28</sup> During the pendency of this proceeding, BellSouth merged with AT&T. We continue to refer to the companies separately because they submitted separate comments in this proceeding.

<sup>29</sup> AT&T has a co-marketing agreement with DIRECTV as a result of its merger with BellSouth as well as its own co-marketing agreement with EchoStar. Telephone conversation with Jim K. Smith, AT&T, Apr. 2, 2007. See also *AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, 22 FCC Rcd 5662 (2007).

15. **Wireless Services.** Wireless cable systems provide video competition to incumbent cable operators only on a limited basis. The number of wireless cable subscribers has declined steadily from a peak of 1.2 million in 1996 to approximately 100,000 as of June 2006, unchanged from a year earlier.<sup>30</sup> In recent years, major commercial mobile radio service (“CMRS”) and other wireless providers have begun offering services that allow subscribers to access video programming over the air on cellular phones and other mobile devices. For example, Verizon’s V CAST service allows customers to download games, music, and video clips on-demand, including television programming aired on networks, such as ESPN, CNN, The Weather Channel, Nickelodeon, MTV, and Comedy Central, as well as clips of videos uploaded on YouTube.com. Similarly, Sprint Nextel also offers a mobile video service, Sprint TV, that allows subscribers to view “linear television programming”<sup>31</sup> from 20 nonbroadcast networks, including the Discovery Channel, the Weather Channel, C-SPAN, and Fox News, as well as video content from several mobile-only channels. In addition, PCOs, also known as satellite master antenna (“SMATV”) systems, continue to serve a small number of MVPD subscribers, either through their own facilities or through partnership arrangements with DBS operators. PCO subscribership has declined to 900,000 subscribers this year, a decrease of 10 percent from last year’s 1 million subscribers.<sup>32</sup>

16. **Broadcast Television Service.** Nielsen estimates that 15.5 million U.S. TV households, representing about 14 percent of the 111.4 million total U.S. television households, do not subscribe to an MVPD service and thus rely solely on over-the-air broadcast television for their video programming.<sup>33</sup> In addition, many households that subscribe to an MVPD also rely on over-the-air signals to receive broadcast programming on some of their television sets.<sup>34</sup> From June 30, 2005, to June 30, 2006, the number of commercial and noncommercial television stations rose from 1,747 to 1,753. As of January 2007, approximately 1,600 stations nationwide were on the air with DTV operations, including all 119 of the top-four network affiliates in the top 30 television markets. The major broadcast networks (ABC, CBS, Fox, and NBC) now provide their most popular programming in high-definition format.<sup>35</sup> Hundreds of local stations are using their digital channels to provide multicast programming, including news, weather, sports, religious material, music videos, and coverage of local musicians and concerts, as well as foreign language programming. NCTA reports that, as of June 2006, local cable systems were carrying the digital signals of 788 unique broadcast stations.

17. **Internet Video.** The amount of web-based video provided over the Internet continues to increase significantly each year.<sup>36</sup> The overall number of homes with access to the Internet continues to

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<sup>30</sup> See Appendix B, Table B-1. See also Section II.F.2 and 3.

<sup>31</sup> The term “linear programming” generally means traditional one-way program streams of the type provided by broadcast stations and established nonbroadcast networks for most of their history – as opposed to two-way interactive features or other forms of advanced services.

<sup>32</sup> See Appendix B, Table B-1. See also Section II.F.1.

<sup>33</sup> See Appendix B, Table B-1. See also Section II.D.1. This percentage is based on Nielsen’s estimate of TV households for the 2006-2007 television season, September 2006-August 2007.

<sup>34</sup> See Media Bureau, *Staff Report Concerning Over-the-Air Broadcast Television Viewers*, MB Docket No. 04-210, Feb. 28, 2005 (“OTA Report”).

<sup>35</sup> See Section II.D.2. See also NAB Comments at 6.

<sup>36</sup> See Section II.G.1.

grow, as does the number of Americans who access the Internet via a high-speed broadband connection. Nearly 70 percent of all U.S. households subscribe to an Internet service, and high-speed connections now constitute 60 percent of online subscriptions. In July 2006, 107 million Americans, three out of every five Internet users, viewed video online. In July 2006, about 60 percent of U.S. Internet users downloaded videos. More than 7 billion videos were downloaded that month.

18. **Home Video Sales and Rentals.** The sale and rental of home videos, including videocassettes and DVDs, offer consumers an alternative to the premium and pay-per-view offerings of MVPDs.<sup>37</sup> Video-on-demand services provided by cable, DBS, and Internet providers also have emerged as competitive alternatives to home video. For the first time, in 2006, the number of DVD households surpassed the number of VHS households. Nielsen research shows that 81.2 percent of households own a DVD player, compared to 79.2 percent that own a VCR.

19. **Cable System Ownership.** Between July 2005 and June 2006, a total of 28 MVPD transactions were announced. Together these transactions were valued at approximately \$5.3 billion and affected approximately 1.8 million subscribers.<sup>38</sup> At the end of 2005, there were 113 “cable clusters”<sup>39</sup> with approximately 50.8 million subscribers, compared to 118 clusters and approximately 51.5 million subscribers at the end of 2004.<sup>40</sup>

20. **Video Programming Services.** In 2006, using additional data resources we identified 565 satellite-delivered national programming networks, an increase of 34 networks over the 2005 total of 531 networks.<sup>41</sup> Of the 565 networks, 84 (14.9 percent) were vertically integrated or affiliated with at least one cable operator.<sup>42</sup> Five of the top seven cable operators (*i.e.*, Comcast, Time Warner, Cox, Charter, and Cablevision) hold ownership interests in satellite-delivered national programming networks. All of the affiliated networks are owned, in whole or in part, by one or more of these companies. Of the 565 national nonbroadcast networks we have identified, 357, or 63.2 percent, are not affiliated with any cable operator or other media entity.<sup>43</sup> There are 124 national, satellite-delivered nonbroadcast networks that are owned by a DBS operator or one or more media entity, including national broadcast networks (*i.e.*, Fox, ABC, CBS, NBC Universal, and Univision), and that are not also owned by a cable multiple system operator (“MSO”). These networks represent 22 percent of the 565 national nonbroadcast networks we have identified, and 25.8 percent of the 481 networks that are unaffiliated with a cable operator. Twenty-three national nonbroadcast networks, not owned by a cable MSO, are affiliated with a DBS provider. During the 2005-2006 television season, the combined audience share of all nonbroadcast networks was

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<sup>37</sup> See Section II.G.2.

<sup>38</sup> See Appendix B, Table B-2. See also Section III.A.2 ¶ 182.

<sup>39</sup> A “cable cluster” is a group of co-owned and co-operated cable systems serving a contiguous geographic area or region.

<sup>40</sup> See Appendix B, Table B-2.

<sup>41</sup> See Section III.B.1.

<sup>42</sup> Vertical integration means that a company owns or is affiliated with its product input (*i.e.*, a cable operator that owns the programming that it distributes on its system is said to be vertically integrated). See Appendix C, Table C-1.

<sup>43</sup> See Appendix C, Table C-2.

higher than that of all broadcast television stations for both all day viewing and prime time viewing. Of the 20 top-rated prime time nonbroadcast networks, seven are affiliated with a cable operator.<sup>44</sup> The remaining 13 networks are owned by other media entities. In addition, six of the top 20 nonbroadcast networks ranked by subscribership are vertically integrated with an MSO. Of the other networks, one is C-SPAN, which is funded, but not directly owned or controlled, by MVPDs; the others are affiliated with noncable media entities.<sup>45</sup>

21. In 2006, we identified 101 regional networks, an increase of six over those identified in 2005.<sup>46</sup> Many, but not all, regional networks are delivered by satellite. These networks provide programming of local or regional interest and are distributed to subscribers of one or more MVPDs in an area. A number of regional networks offer local news or sports programming, but some provide more general programming, such as religious or ethnic programming. Of the 101 regional networks we identified, 57 networks, or 56.4 percent, were vertically integrated with at least one MSO. We continue to monitor the availability of sports programming. There are 43 regional sports networks, representing 42.6 percent of all regional networks, as compared to the 37 we reported last year. Of the 43 regional sports networks, 19, or 44.2 percent, are vertically integrated with a cable MSO. In addition, Fox continues to be the leader in the distribution of regional sports networks, owning or holding an ownership interest in 19, or 44.2 percent, of all regional sports networks.

22. ***Consumer Equipment and Technical Developments.*** The sale of DTV consumer electronics continues to accelerate. The Consumer Electronics Association (“CEA”) estimates that, in 2006, digital televisions (“DTVs”) will have outsold analog televisions by 66 percent.<sup>47</sup> Kagan Media Research estimates that, between 1998, when digital television sets were first offered for retail sale, and year-end 2006, approximately 51.8 million HD-ready and “enhanced-definition” (“ED”)-ready monitors had been shipped to retailers, with 46.4 million of those being HD-ready monitors.<sup>48</sup> Of those shipped, Kagan estimates that a total of 49.6 million have been purchased by consumers, of which 42.9 million were HD-ready monitors.<sup>49</sup> In 2006 alone, Kagan estimates that 22.4 million HD-ready and ED-ready monitors were shipped to retailers, with 20.8 million of those HD-ready. Of those shipped, Kagan estimates that more than 21.5 million monitors were purchased by consumers, with 19.8 million of those being HD-ready. CEA estimates that in 2006 the average retail price of a DTV set declined nearly 25 percent, falling from \$1,369 in 2005 to \$1,043; the 2006 average price is 67 percent lower than the average price of \$3,147 in 1998.

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<sup>44</sup> See Appendix C, Table C-6.

<sup>45</sup> See Appendix C, Table C-5.

<sup>46</sup> See Appendix C, Table C-3.

<sup>47</sup> Technical developments are discussed in Section IV.

<sup>48</sup> Enhanced-definition (“ED”) refers to digital television signals with a resolution somewhere between standard-definition (current analog signals) and high-definition (“HD”). Enhanced-definition is approximately DVD-quality. “HD-ready” and “ED-ready” mean that a television is capable of displaying an HD signal or an ED signal, but does not include a digital tuner for over-the-air reception of digital broadcast signals.

<sup>49</sup> Kagan Research, LLC, *Digital TV Set Projection Model*, Media Trends 2006, at 118.

23. The development and deployment of CableCARDS continued in 2006. CableCARDS permit the reception of one-way secured digital cable services without the addition of a set-top box. As of December 22, 2006, more than 216,000 CableCARDS had been deployed by cable operators, up from 90,000 a year ago. As of November 10, 2006, 541 models of Unidirectional Digital Cable Ready Products ("UDCPs") had been verified for use with CableCARDS. In January 2007, testing began on multi-stream CableCARDS for use with UDCPs. Cross-industry talks to negotiate an agreement to provide two-way (*i.e.*, interactive) cable functionality in consumer electronics devices continued in 2006, but no major developments were made in the industry negotiations. Development of downloadable security as a means of satisfying separable security requirements also continued.

24. The video industry is adopting advanced technologies to better position its participants in the changing marketplace. For example, while the satellite industry has adopted MPEG-4 as a means of offering high definition local-into-local programming, the cable and consumer electronics industries have begun adopting technologies such as multimedia over coaxial cable, Home Networking, and Switched Digital Video to enable new in-home services such as multi-room digital video recorders, viewing outside the home using portable devices, expanded interactivity, and greater programming options. Further, the adoption of IP-based transport for video will allow manufacturers and service providers to offer yet greater integration with personal computers and the Internet.

25. **Foreign Markets.** This year, we focus on developments in the offering of digital tiers and a la carte services in foreign markets.<sup>50</sup> MVPDs in a number of countries provide programming on an a la carte basis or in mixed bundles, themed tiers, and subscriber-selected tiers. For example, in Hong Kong, consumers receive a free basic package and also can subscribe to more programming for an additional charge per channel; in Canada, the largest cable operators offer a la carte services; and in the United Kingdom, while all digital cable and satellite TV subscribers receive a low-cost service, consumers may select additional programming services they want, either on a subscription or pay-as-you-go basis, without first purchasing a monthly basic-tier package.

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

### A. Cable Television Service

26. This section addresses the performance of cable television system operators during the past year.<sup>51</sup> First, we report on the general performance of the industry, including the availability of cable service and subscribership to basic and premium services. Second, we address programming service and pricing, including cable system capacity, channel allocation, and cable prices. Third, we discuss the cable industry's financial performance, including its revenue, cash flow, programming costs, system transactions, and stock prices. Fourth, we examine the cable industry's acquisition and disposition of

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<sup>50</sup> Under a la carte, consumers can purchase programming on an individual network basis. *See Further Report On the Packaging and Sale of Video Programming Services to the Public* (MB Feb. 9, 2006), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-263740A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-263740A1.pdf). *See also* Section III.B.2.b., Packaging of Programming Services, ¶ 220 and Section V, Foreign Markets, ¶¶ 282-289.

<sup>51</sup> 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).

capital, including financing and capital investment. Fifth, we address the growth of advanced video services, including digital and high-definition television, video-on-demand (“VOD”), and digital video recorders (“DVRs”); and non-video advanced services, including high-speed Internet access and voice over Internet protocol telephony (“VoIP”). Lastly, we discuss cable’s entry into mobile telephony.

### 1. General Performance

27. The number of subscribers to basic<sup>52</sup> and premium<sup>53</sup> cable service declined in 2005. Basic cable penetration, the ratio of the number of households that subscribe to basic cable to the number of households passed by cable,<sup>54</sup> declined in 2005 and is estimated to have declined further in the first half of 2006. By all other measures, however, general cable industry performance improved. For example, premium cable service subscriptions<sup>55</sup> and subscriptions to digital video service increased.<sup>56</sup> The number

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<sup>52</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 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 service tiers. 47 U.S.C. § 543(b)(7); 47 U.S.C. § 543 (k)(2).

<sup>53</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 programs provided on a per program basis. PPV service is a separate category from premium service.

<sup>54</sup> Households passed by cable is the total number of households capable of receiving cable television service.

<sup>55</sup> Premium service subscriptions are the number of premium services to which households are subscribing.

<sup>56</sup> Digital cable service refers to digitally compressed video channels offered on digital service tiers.

of households passed increased in 2005.<sup>57</sup> Channel capacity<sup>58</sup> and deployment of video-on-demand,<sup>59</sup> digital video recorders,<sup>60</sup> and high-definition service all increased during 2005 and the first half of 2006.<sup>61</sup> Deployment of non-video advanced services, such as high-speed Internet access service and voice services, also increased during this period.<sup>62</sup>

28. **Availability of Cable.** A common measure of cable availability is the percentage of households passed by cable systems.<sup>63</sup> The calculation of cable availability, however, has been a subject of controversy, in part, because a variety of data sources have been used and no two data sources produce exactly the same estimate.

29. In previous years, we have used Kagan data to estimate cable availability. At the end of 2005, Kagan data estimate that there were 111.8 million households, and cable systems passed 110.8 households.<sup>64</sup> Accordingly, this data indicates that 99 percent of households were passed by a cable system.

30. **Subscribership.** The number of basic cable subscribers has fluctuated slightly since the last *Report*. From June 2005 to year-end 2005, the number of basic cable subscribers declined slightly from 65.4 million to 65.2 million. From the end of 2005 to June 2006, the number of basic cable subscribers increased slightly to 65.3 million.<sup>65</sup> Kagan, however, projected that the number of basic cable subscribers would increase to 65.4 million basic subscribers at year-end 2006, and continue to increase

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<sup>57</sup> Kagan Research, LLC, *Pay TV Subscriber History*, Broadband Cable Financial Databook, Aug. 2006 (“Cable Databook”), at 9.

<sup>58</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>59</sup> Video-on-demand (“VOD”) allows subscribers to select at any time movies and other programs they wish to view from a selection of titles stored on a remote server.

<sup>60</sup> Digital video recorders (“DVRs”) use a hard disk drive to record video programs.

<sup>61</sup> High-definition (“HD”) service provides television signals with greater detail and fidelity than provided by the National Television Systems Committee (“NTSC”) system used by analog televisions. The high-definition picture has approximately twice the visual resolution as NTSC. High-definition service also supports 5.1 channel Dolby Digital surround sound.

<sup>62</sup> Cable Databook at 8.

<sup>63</sup> Previous *Reports* calculated cable availability as the percentage of households with a television passed by cable systems. In this *Report*, we calculate cable availability to all households (*i.e.*, households with a television and households without a television). We make the change from television households to households for three reasons. First, the 70/70 benchmarks in Section 612(g) of the Act refer to households, not television households (*see* ¶ 33 *infra*). Second, the available data used to estimate cable availability and cable penetration are based on households, not television households. Third, according to Nielsen Media Research, approximately 98 percent of households have a television set, so estimates based on households and estimates based on television households should be similar.

<sup>64</sup> Cable Databook at 11.

<sup>65</sup> *See* Table 1. *See also* Appendix B, Table B-1.

year after year for the next decade.<sup>66</sup> Basic cable penetration (*i.e.*, households that subscribe to cable/households passed by cable) declined in 2005, as the number of subscribers decreased and the number of households passed increased. Based on Kagan data, we estimate that cable penetration declined further in the first half of 2006. The percentage of households that subscribe to basic cable (*i.e.*, households that subscribe to basic cable/households) also declined in 2005, as the number of households that subscribe to basic cable decreased while the number of existing U.S. households increased.<sup>67</sup>

**Table 1: Cable Television Industry Growth: 2003-June 2006 (in millions)**<sup>68</sup>

Year	Households (H) <sup>69</sup>		Households Passed by Cable (HP) <sup>70</sup>		Households that Subscribe to Basic Cable (Subs) <sup>71</sup>		Percent of Households Passed by Cable (HP/H)	Percent of Households that Subscribe to Basic Cable (Subs/H)	Basic Cable Penetration (Subs/HP)
	Total	Percent Change Over Prior Year	Total	Percent Change Over Prior Year	Total	Percent Change Over Prior Year			
2003	109.9	1.4%	106.0	2.5%	66.0	-0.2%	96.5%	60.1%	62.3%
2004	111.4	1.4%	108.6	2.5%	65.4	-0.9%	97.5%	58.7%	60.2%
2005	111.8	0.4%	110.8	2.0%	65.2	-0.3%	99.1%	58.3%	58.8%
June 2006 <sup>72</sup>	112.6	0.7%	111.8	0.9%	65.3	0.2%	99.3%	58.0%	58.4%

31. Cable companies continue to experience variations in the number of basic subscribers they serve, as shown in Table 2.

<sup>66</sup> Cable Databook at 11.

<sup>67</sup> Cable Databook at 11.

<sup>68</sup> Some of the data presented in Table 1 differ from previous *Reports*. Specifically, this year we report households. In previous *Reports*, we reported television households. For further explanation, *see* note 63 *supra*.

<sup>69</sup> The 2003-2005 households numbers are reported by Kagan as total U.S. occupied households. Kagan Research, LLC, *Kagan's 10-Year Cable TV Industry Projections*, Broadband Cable Financial Databook, Aug. 2004 ("2004 Cable Databook"), at 11; Kagan Research, LLC, Broadband Cable Financial Databook, Aug. 2005 ("2005 Cable Databook"), at 11; and *Pay TV Subscriber History*, Cable Databook at 9. The June 2006 households estimate is an average calculated from the actual 2005 and the projected 2006 numbers. Cable Databook at 11.

<sup>70</sup> The 2003-2005 households passed by cable numbers are reported by Kagan as occupied cable households passed. Cable Databook at 9. The June 2006 households passed by cable estimate is an average calculated from the actual 2005 and the projected 2006 numbers. *Id.* at 11.

<sup>71</sup> The 2003-2005 households that subscribe to basic cable numbers are reported by Kagan as total basic cable subscribers. *Id.* at 9. The June 2006 households that subscribe to basic cable estimate is an average calculated from the actual 2005 and the projected 2006 numbers. *Id.* at 11.

<sup>72</sup> Percentage change columns in this row are from December 2005 to June 2006.

**Table 2: Top MSOs' Basic Cable Subscribers – Year End 2004 to June 2006**

Operator	Year End 2004	Year End 2005	Gain/(Loss) 2004-2005	June 2006	Gain/(Loss) 2005-June 2006
<b>Comcast</b> <sup>73</sup>	21,561,000	21,449,000	(112,000)	21,657,000	208,000
<b>Time Warner</b> <sup>74</sup>	10,919,000	10,957,000	38,000	11,100,000	143,000
<b>Charter</b> <sup>75</sup>	5,991,500	5,884,500	(107,000)	5,876,100	(8,400)
<b>Cablevision</b> <sup>76</sup>	2,963,001	3,026,994	63,993	3,101,044	74,050
<b>Mediacom</b> <sup>77</sup>	1,458,000	1,423,000	(35,000)	1,400,000	(23,000)

32. For the third year in a row, the number of households subscribing to premium cable services declined. However, total revenue for premium services continued to increase. As shown in Table 3 below, the number of households subscribing to premium services dropped from 28.1 million in 2004 to 27.8 million in 2005.<sup>78</sup> Yet, the number of premium cable service subscriptions increased from 90.8 million in 2004 to 96.9 million in 2005.<sup>79</sup> In other words, although cable systems sold premium services to fewer households, the average number of premium cable service subscriptions per subscribing household increased. The data shows growth from an average 3.2 subscriptions per subscribing household in 2004 to an average 3.5 in 2005.<sup>80</sup> The total revenue received from premium services also increased 2.1 percent in 2005.<sup>81</sup>

<sup>73</sup> Comcast Corp., *Comcast Reports Fourth Quarter and Year End 2005 Results* (press release), Feb. 2, 2006; Comcast Corp., *Comcast Reports Second Quarter 2006 Results* (press release), July 27, 2006.

<sup>74</sup> Time Warner Inc., *Time Warner Reports Results for 2004 Full Year and Fourth Quarter* (press release), Feb. 4, 2005; Time Warner Inc., *Form 10-K/A (Amended Annual Report)*, filed Sept. 13, 2006 for the period ending Dec. 31, 2005; Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2006 Results* (press release), Aug. 2, 2006.

<sup>75</sup> Charter Communications Inc., *Charter Reports Fourth Quarter and Full-Year 2005 Financial and Operating Results* (press release), Feb. 28, 2006; Charter Communications Inc., *Charter Communications Reports Second-Quarter 2006 Financial and Operating Results* (press release), Aug. 8, 2006.

<sup>76</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2005 Results* (press release), Feb. 27, 2006; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2005 Results* (press release), Aug. 8, 2006.

<sup>77</sup> Mediacom Communications Corp., *Mediacom Communications Reports Results for Fourth Quarter and Full Year 2005* (press release), Feb. 23, 2006; Mediacom Communications Corp., *Mediacom Communications Reports Results for Second Quarter 2006* (press release), Aug. 9, 2006.

<sup>78</sup> *Id.* at 9.

<sup>79</sup> *Id.*

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

<sup>81</sup> *Id.* at 8.

**Table 3: Premium Cable Services: 2000 - 2005 (in millions)<sup>82</sup>**

Year	Premium Cable Service Subscribers		Premium Cable Service Subscriptions		Average Number of Subscriptions Per Subscriber	
	Total	Percent Change Over Prior Year	Total	Percent Change Over Prior Year	Subscriptions /Subscribers	Percent Change Over Prior Year
2000	28.5	1.8%	65.9	11.7%	2.3	4.5%
2001	29.0	1.8%	75.4	14.4%	2.6	13.0%
2002	29.3	1.0%	81.1	7.6%	2.8	7.7%
2003	28.3	-3.4%	83.4	2.8%	2.9	3.6%
2004	28.1	-0.7%	90.8	8.9%	3.2	10.3%
2005	27.8	-1.1%	96.9	6.7%	3.5	9.4%

33. **Section 612(g) Benchmarks.** Section 612(g) of the Act states that: (1) “at such time as cable systems with 36 or more activated channels are available to 70 percent of households within the United States” and (2) “are subscribed to by 70 percent of the households to which such systems are available, the Commission may promulgate any additional rules necessary to provide diversity of information sources.”<sup>83</sup> Data submitted in the record of the *2005 Report* raised questions as to whether the 70/70 test had been satisfied.<sup>84</sup> Accordingly, in the *2005 Report*, we requested further comment on the best methodologies and data for measuring the 70/70 thresholds and what, if any, additional action should be undertaken to achieve the statutory goals, should we find that the thresholds have been met.<sup>85</sup>

34. Based on the comments received in response to *2005 Report*, there is no disagreement that the first prong of the 70/70 test has been met. All commenters agree that cable systems with 36 or more channels are available to more than 70 percent of households within the United States. In the *2005 Report*, we found that cable systems with 36 or more channels were available to 86.3 percent of households.<sup>86</sup> Current Census Bureau data indicate that there are 109,450,000 households.<sup>87</sup> According

<sup>82</sup> Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. See *Cable Databook* at 9. The 2000 through 2005 premium cable service subscriber numbers are reported by Kagan as subs/cable/pay. *Id.* at 9. The 2000 through 2005 premium cable service subscription numbers are reported by Kagan as the sum of premium units and mini-pay units (defined as a pay TV service that programs less than eight hours per day). Cable premium units include HBO, Cinemax, Showtime, Movie Channel, Starz, and Playboy. Cable mini-pay units include Sundance, Flix, and Encore. *Id.* at 9.

<sup>83</sup> 47 U.S.C. § 532(g). This provision was added to the Communications Act by the Cable Communications Policy Act of 1984 (“*1984 Cable Act*”), Pub. L. No. 98-549, 98 Stat. 2779.

<sup>84</sup> *2005 Report*, 21 FCC Rcd at 2513-14 ¶ 33.

<sup>85</sup> *Id.* at 2515 ¶ 36.

<sup>86</sup> *Id.* at 2513 ¶ 32.

to Warren Communications News (Warren) there are 93,373,707 households passed by cable systems with 36 or more channels.<sup>88</sup> Thus, based on these data sources, cable systems with 36 or more channels are available to 85.3% (93,373,707/109,450,000) households.

35. Commenters on our last report disagree regarding whether the second prong of the 70/70 test has been met.<sup>89</sup> Specifically, they disagreed whether 70 percent of the households passed by cable systems with 36 or more channels subscribe to these systems.<sup>90</sup> At that time, we found that alternative estimates yielded different conclusions about whether the 70/70 test had been met. In the *Notice*, we requested additional information regarding the 70/70 test.<sup>91</sup>

36. According to Warren Communications, there were 93,373,707 households passed by cable systems with 36 or more channels. Warren reports that there were 66,661,544 subscribers to such systems. Thus, 71.4 percent of households passed by cable systems offering 36 or more channels subscribe to these systems.<sup>92</sup>

37. As described in the *2005 Report*, AT&T's calculation of the second prong of the 70/70 test mixed data from different sources.<sup>93</sup> We conclude that the calculation of the second prong, which compares the number of subscribers to the number of households passed, should use the same data source for both the numerator and denominator, if possible. In this way, the numerator (number of cable subscribers) is derived from the same households that are used for in the denominator (number of households passed by cable systems) and a valid comparison can be made between the number of subscribers and the household passed. Using Warren data for both the numerator and denominator remedies the deficiency in the estimate submitted by AT&T.<sup>94</sup>

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<sup>87</sup> U.S. Census Bureau, *Census Bureau Reports on Residential Vacancies and Homeownership* (press release), July 27, 2007, Table 3. See <http://www.census.gov/hhes/www/housing/hvs/qtr207/q207press.pdf> (visited Oct. 10, 2007).

<sup>88</sup> Warren Communications News, *Custom Report: from Television and Cable Factbook Datasets*, Oct. 10, 2007. E-mail from Michael Taliaferro, Assistant Publisher, Directories, WARREN COMMUNICATIONS NEWS, Oct. 10, 2007.

<sup>89</sup> See, e.g., Comments of AT&T, MB Docket No. 05-255 (filed Apr. 3, 2006); Comments of NCTA, MB Docket No. 05-255 (filed Apr. 3, 2006); Reply Comments of NCTA, MB Docket No. 05-255 (filed Apr. 25, 2006).

<sup>90</sup> Compare Comments of NCTA, MB Docket No. 05-255, at 5 (filed Apr. 3, 2006) (estimating measures for the second prong of the 70/70 test at 67.8 percent using data from Warren Communications, 62.7 percent using data from Nielsen Media Research, and 53.1 percent using data from Kagan Research LLC) with Reply Comments of SBC, MB Docket No. 05-255, at 15 (filed Oct. 11, 2005) (estimating the second prong at 77.2 percent).

<sup>91</sup> *Notice*, 21 FCC Rcd at 12242-43 ¶¶ 36-37. No new data were provided in response to our request for additional data, although NCTA incorporates its previous filing by reference. NCTA Reply Comments at 9.

<sup>92</sup> Warren Communications News, *Custom Report: from Television and Cable Factbook Datasets*, Oct. 10, 2007. E-mail from Michael Taliaferro, Assistant Publisher, Directories, WARREN COMMUNICATIONS NEWS, Oct. 10, 2007.

<sup>93</sup> *2005 Report*, 21 FCC Rcd at 2513-14 ¶ 33.

<sup>94</sup> We note that Kagan, unlike Warren, does not report data for cable systems with 36 or more channels and thus does not provide the precise data we need to perform the calculation specified by the statute. We also note that the Kagan estimate regarding the number of households passed by cable, 113,600,000 is greater than the U.S. Census Bureau estimate of 109,450,000 total households. See Mariam Rondell, "Kagan Multichannel Projections: Impact of Telco TV," *Cable TV Investor*, SNL Kagan, July 31, 2007 at 2.

38. Other commenters concur with AT&T. For example, CU uses various public data sources to derive an estimate of 71.6 percent (63 million/88 million = 71.6%) for the second prong of the 70/70 test.<sup>95</sup> MAP submits a report by Dr. Gregory Rose. Dr. Rose used data from ABI Research and Paul Budde Communications to estimate the ratio of cable subscribers to homes passed by all cable systems as 77.53 percent (85.99 million /110.91 million = 77.53%).<sup>96</sup>

39. Commenters questioned the unit of measurement to be used in the calculation. Section 612(g) refers to the number of “households” passed by cable systems. Warren states that “homes passed indicates number of homes passed by cable and currently accessible to cable.”<sup>97</sup> Consistent with Warren’s approach, we note that, according to the Census Bureau, a household refers to a collection of persons that reside in a housing unit.<sup>98</sup> Moreover, the Commission has consistently relied on this understanding in making 70/70 calculations in the past.<sup>99</sup> We further note that Warren indicates that its data include only cable systems that provide information, noting that many cable operators do not provide homes passed information, and that basic cable subscriber totals do not include subscribers to systems that only operate digitally.<sup>100</sup>

40. Although Warren’s numbers indicate that the second prong of the 70/70 test has not been met, several others that the Commission has consistently relied upon indicate that it has not been met. Warren estimates that of the occupied U.S. homes passed by cable systems with 36 or more channels, 66,661,544 of those households subscribe to cable service offered by such systems. As a percentage measure, then, the Warren data indicates that 71.4 percent of homes passed (66,661,544/93,373,707) subscribe to these systems. As alternatives, data from the 2005 Price Survey and the Annual Report of Cable Television Systems (FCC Form 325) could be used to estimate the second prong of the 70/70 benchmark. Neither source, however, indicates that the second element of the test has been met. Using the data in the 2005 Price Survey, the Commission staff estimates that the subscribers to systems with 36 or more channels as a percent of the homes passed by such systems is 56.3 percent, compared to 58.8 percent using data from the 2004 Price Survey sample. Based on data

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<sup>95</sup> See Letter from Mark Cooper, Research Director, Consumer Federation of America, Gene Kimmelman, Vice President, Consumers Union, and Ben Scott, Policy Director, Free Press, to Kevin J. Martin, Chairman, FCC (Nov. 16, 2007).

<sup>96</sup> See Letter from Harold Feld, Senior Vice President, Media Access Project, and Andrew Jay Schwartzman, President and CEO, Media Access Project, to Robert M McDowell, Commissioner, FCC, and Deborah Taylor Tate, Commissioner, FCC, Attachment (“Estimating the Take Rate for the 70/70 Rule: An Alternative Methodology”) at 4, (Nov. 16, 2007).

<sup>97</sup> See Warren Communications News, Television & Cable Factbook 2007, *Cable Directory Description, Plant*, at D-8.

<sup>98</sup> A household consists of all people who occupy a particular housing unit as their usual residence. The usual residence is the place where the person lives and sleeps most of the time. U.S. Department of Housing and Urban Development and U.S. Census Bureau, *American Housing Survey for the United States: 2005*, Aug. 2005, Appendix A at A-9. See also <http://www.census.gov/hhes/www/housing/ahs/definitions.html> (visited Feb. 23, 2007).

<sup>99</sup> See, e.g., 2005 Report, 21 FCC Rcd at 2514 ¶ 34; 2004 Report, 20 FCC Rcd at 2767 ¶ 20; 2003 Report, 19 FCC Rcd at 1621 ¶ 22.

<sup>100</sup> See Letter from Michael Taliaferro, Managing Editor, Television & Cable Factbook, to Commissioners Tate and McDowell, Nov. 15, 2007.

submitted to the Commission in the Annual Report of Cable Television Systems (Form 325), our staff estimates that this figure is 54 percent, the same percent as reported last year. NCTA has submitted other measures. Using Warren, Nielsen, and Kagan data, NCTA submitted estimates of the second prong of the 70/70 benchmark ranging from 58.1 percent to 68.9 percent.<sup>101</sup>

41. We recognize that the available data sources have some limitations because the reported cable penetration rates are not calculated from a complete census of cable systems. Each reported penetration rate is an estimate, subject to some variation from the actual penetration rate. The limitations of the data sources do not appear to affect the determination with respect to the first prong of the 70/70 test, which is higher than the threshold regardless of the data source used for the calculation. The question of whether the second prong has been met is less clear since one data source that we have traditionally relied on, Warren, shows that the second prong of the 70/70 test has been met. The other data sources do not demonstrate that the second prong has been met.

42. In addition, commenters, such as AT&T, the Association of Independent and Video Filmmakers *et al.*, and CBA, argue that competitors to incumbent cable systems (*e.g.*, overbuilders, DBS operators, and Internet providers) should be included in the calculation of the 70/70 test.<sup>102</sup> With respect to DBS operators and Internet providers, we disagree: they do not meet the statutory definition of a cable system and, therefore, should not be included in the 70/70 calculations. An overbuilder, however, appears to meet the statutory definition of a cable system and, therefore, has been included in past 70/70 calculations. We note that Warren includes most overbuilders<sup>103</sup> in its estimates of cable subscribers.<sup>104</sup>

43. As a result, we find that the only way to accurately conclude that the 70/70 test has been met is to have the cable industry provide us with the data with respect to their systems. Therefore, the Commission requires each cable operator to submit the following information for each system on a zip code basis within the next 60 days. This information must be filed for calendar year 2006 and cable operators must also file their most current data for 2007.<sup>105</sup>

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<sup>101</sup> See Letter from Kyle McSlarrow, President and CEO, NCTA, to Kevin J. Martin, Chairman, FCC, Michael J. Copps, Commissioner, FCC, Jonathan S. Adelstein, Commissioner, FCC, Deborah T. Tate, Commissioner, FCC, and Robert M. McDowell, Commissioner, FCC (Nov. 14, 2007) at 3.

<sup>102</sup> See AT&T Comments at 4, AIVF Comments at 5, and CBA Reply at 3-4 filed in response to request for additional information in the *2005 Report*, 21 FCC Red 2515 ¶ 36.

<sup>103</sup> For example, including Verizon in Warren's data would increase the total number of cable subscribers to systems with 36 or more channels by 717,000, thereby increasing the percentage of households subscribing to systems with 36 or more channels to 72.1 percent. We note that adding Verizon's subscribers does not increase the denominator because doing so would double count homes already passed by cable.

<sup>104</sup> See Warren Communications News, Television & Cable Factbook 2007, at D-7. Warren uses the Commission's definition of a cable system in Section 76.5(a) of the rules, including overbuilders. See 47 U.S.C. § 76.5(a). Moreover, this approach is consistent with our construction of the term in other cable related settings. In the "effective competition" test relevant to cable rate regulation under Section 623 of the Act, the Commission has distinguished between vacant and occupied housing units, declining to include vacant housing units within the term "households" as used in that analysis. Therefore, we conclude here that the calculation of the second prong should include only occupied housing units in the denominator and only subscribers from such units in the numerator.

<sup>105</sup> Any false certification made to the Commission may be punished by fine and/or imprisonment under 18 U.S.C. § 1001. We also emphasize that any false information provided to the Commission pursuant to the requirements set (continued....)

1. Total number of homes the cable operator currently passes;
2. Total number of homes the cable operator currently passes with 36 or more activated channels;
3. Total number of actual subscribers, including all subscribers in MDUs; and
4. Total number of subscribers with 36 or more activated channels.

## 2. Programming Services and Pricing

**44. Cable System Capacity and Allocation of Channels.** The Commission's 2005 *Cable Price Survey Report*<sup>106</sup> provides figures on cable system capacity and the number of analog and digital video channels being delivered by surveyed cable systems (see Table 4).<sup>107</sup> The *Cable Price Survey Report* shows that 87 percent of the sampled cable systems where the Commission has not made a finding of effective competition and 90 percent of the sampled cable systems where the Commission has made such a finding have operating capacity of 750 MHz or above.<sup>108</sup> The average operating capacity of systems surveyed for the *Report* is 734 MHz for cable systems for which the Commission has not made an effective competition finding and 754 MHz for cable systems for which it has.<sup>109</sup> Comparing these

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forth above may be similarly punished under 18 U.S.C. § 1621. A cable operator may certify to the Commission that it does not possess such information for calendar year 2006 and that it is not possible for the operator to compile such data for calendar year 2006.

<sup>106</sup> 2005 *Cable Price Survey Report*. Section 623(k) of the Communications Act, as amended by the Cable Television Consumer Protection and Competition Act of 1992 ("Cable Act"), requires the Commission to publish annually a statistical report on average rates for the cable basic service tier, cable programming service tier, and equipment. See 47 U.S.C. § 543(k). The basic service tier includes local broadcast stations and public, educational, and governmental access channels. See 47 U.S.C. § 543(b)(7). The cable programming service tier includes channels other than channels carried on the basic service tier or for which per channel ("premium") or per program ("pay-per-view") charges apply. See 47 U.S.C. § 543(k)(1)(2). Equipment refers to a set-top converter box, remote control unit, and other equipment used to access cable television programming. See 47 U.S.C. § 543(b)(3). The information and analysis provided in the 2005 *Cable Price Survey Report* are based on the Commission's survey of cable industry prices ("Survey") as of January 1, 2005.

<sup>107</sup> The Survey requested data from cable operators serving a random sample of communities. The Commission asked operators to report monthly prices as of January 1, 2005, and January 1, 2004, to permit calculation of an annual percentage change. In addition, the questionnaire asked for the price of the most highly subscribed digital service tier, customer-premise equipment charges, and service installation charges. Information was gathered on factors that may affect prices, including programming expenses; operating capacity; and the number of subscribers to program tiers, Internet access service, and telephony.

<sup>108</sup> The Survey requested data from cable system operators serving a random sample of communities. The information collected enables the Commission to compare prices charged by operators serving: (1) communities where operators have not been formally found to meet the statutory test for effective competition ("noncompetitive communities"); and (2) communities where cable operators have been granted relief from rate regulation for their basic-service tier because they meet the statutory test for effective competition ("communities relieved from rate regulation"). In selecting cable operators in the communities relieved from basic-tier rate regulation, we relied on the Commission's formal legal decisions regarding effective competition, based on the statutory definition of that term under the Cable Act. See 47 C.F.R. § 76.905(b). Our list of communities relieved from rate regulation is limited to adjudicated findings of effective competition. We are unable to take into account those areas of the country where the conditions for a finding are present, but no finding has been requested or made. If a community is deemed subject to effective competition, the local franchising authority may no longer regulate basic service tier rates, unless it seeks and is granted recertification. See 47 C.F.R. § 76.916(a). See also 2005 *Cable Price Survey Report*, 21 FCC Rcd at 15088 ¶¶ 3-4 & n.5.

<sup>109</sup> Cable system operating capacity may be allocated among video and nonvideo services.

averages with those from the 2004 Price Report, we find that the average operating capacity for cable systems where the Commission has made a finding of effective competition increased from 734 MHz to 754 MHz, and the average operating capacity for systems where the Commission has not made such a finding remains unchanged.<sup>110</sup> Cable systems where the Commission has not made a finding of effective competition provide, on average, 226.3 video channels (73.6 analog and 152.7 digital and high definition). Cable systems where the Commission has made such a finding provide, on average, 234.9 video channels (75.3 analog and 159.6 digital and high definition). While the programming packages offered by cable operators vary from system to system, the *2005 Cable Price Survey Report* indicates that the average cable system where the Commission has not made a finding of effective competition provides 24.9 channels on its basic service tier and 45.4 channels on its expanded basic service tier. The average cable system where the Commission has made such a finding provides 24.5 channels on its basic service tier and 47.5 channels on its expanded basic service tier.<sup>111</sup>

**Table 4: January 2005 Cable System Capacity and Distribution of Channels<sup>112</sup>**

	No Commission Finding of Effective Competition	Commission Finding of Effective Competition
<b>Average System Capacity (MHz)</b>	734	754
<b>Percentage of Subscribers by Capacity of Cable System Serving Their Community</b>		
System above 750 MHz	18%	24%
System at 750 MHz	69%	66%
System from 331 - 749 MHz	11%	9%
System below 330 MHz	2%	1%
<b>Distribution of Channels<sup>113</sup></b>		
Total number of analog channels	73.6	75.3
Average number of basic channels	24.9	24.5
Average number of expanded basic channels	45.4	47.5
Other analog channels	3.3	3.3
Total number of digital channels	152.7	159.6

45. **Cable Prices.** The average monthly cable rate for the basic plus expanded basic service tiers increased 5.2 percent from 2004 to 2005.<sup>114</sup> Cable rate increases continued to outpace general

<sup>110</sup> See *2004 Cable Price Survey Report*, 20 FCC Rcd at 2730, Table 9.

<sup>111</sup> *2005 Cable Price Survey Report*, 21 FCC Rcd at 15096, 15105, Table 4, Attachment 4. The “expanded basic service tier” excludes the basic service tier.

<sup>112</sup> *Id.* at 15096, 15099, Tables 4, 8, and 9.

<sup>113</sup> This year we report the distribution of channels in terms of the simple sum of analog and digital channels. In previous years, we have reported the total number of channels in terms of bandwidth (specifically, the estimated number of 6 MHz channels) needed to carry the analog and digital channels. See, e.g., *2004 Report*, 20 FCC Rcd at 2770-71 ¶ 24, n.72.

<sup>114</sup> *2005 Cable Price Survey Report*, 21 FCC Rcd at 15093, Table 1.

inflation.<sup>115</sup> The average monthly cable rate increased 5.2 percent for cable systems where the Commission has not made a finding of effective competition and 4.9 percent for cable systems where the Commission has made such a finding.<sup>116</sup> The prices charged by cable systems where the Commission has not made a finding of effective competition were on average 7.9 percent higher than the prices charged by cable systems where the Commission has made such a finding. Where the effective competition finding was based on competition from a wireline cable provider, prices were notably lower. Specifically, prices charged by cable systems where the Commission has not made an effective competition finding were 20.6 percent higher than the prices charged by cable systems found to be facing competition from a second cable operator.<sup>117</sup> In dollar amounts, the average monthly cable rate was \$43.33 for cable systems in the first category and \$35.94 in the second.<sup>118</sup> In contrast, prices charged by cable systems where the Commission has not made a finding of effective competition were almost the same as the prices charged by cable systems found to be facing competition from DBS.<sup>119</sup>

### 3. Financial Performance

46. **Cable Industry Revenue.** Total revenue grew to \$65.7 billion in 2005, as shown in Table 5 below.<sup>120</sup> This represents a 10.3 percent increase over 2004's \$59.6 billion. Cable revenue was projected to grow 11.1 percent in 2006 to \$72.9 billion. Average monthly residential revenue per subscriber grew from \$72.87 in 2004 to \$79.42 in 2005 and was projected to increase to \$87.04 in 2006.<sup>121</sup> As shown in Table 5, all revenue categories increased.

47. **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>122</sup> Cash flow from operations is the net result of

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<sup>115</sup> The Bureau of Labor Statistics ("BLS") publishes a Consumer Price Index ("CPI") that measures general price inflation through changes in the prices of a selected group of goods and services. By this measure, general inflation increased by 3.0 percent over the 12 months ending January 2005 compared to an increase of 1.9 percent over the 12 months ending January 2004.

<sup>116</sup> *Id.*

<sup>117</sup> *Id.*

<sup>118</sup> *Id.*

<sup>119</sup> The average monthly cable rate was \$43.34 for operators relieved from rate regulation due to competition from DBS. *Id.*

<sup>120</sup> Cable Databook at 9.

<sup>121</sup> 2005 Cable Databook at 4; Cable Databook at 4.

<sup>122</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. 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 (continued....)

cash inflows from operations (revenues) and cash outflows from operations (expenses). Cash flow from operations indicates a firm's ability to meet its net financial and investment obligations and thus does not include noncash charges to net income such as depreciation and amortization. As Table 5 shows, cash flow from operations increased during 2005.<sup>123</sup> In addition, the cash flow margin (cash flow/total revenue) increased in 2005, as cash flow increased at a greater rate than total revenue, indicating that revenues grew faster than operating expenses during 2005.

**Table 5: Cable Industry Revenue and Cash Flow: 2004 – 2006<sup>124</sup>**

	<b>2004 Total</b>	<b>2005 Total</b>	<b>04-05 Percent Change</b>	<b>Est. 2006 Total</b>	<b>05-06 Percent Change</b>
Basic Subscribers (mil.)	65.4	65.2	-0.3%	65.4	0.3%
<b>Revenue Segments (mil.)</b>					
Basic Service and CPST Tiers	\$30,080	\$31,075	3.3%	\$32,274	3.9%
Premium (Pay) Tiers	\$6,255	\$6,389	2.1%	\$6,414	0.4%
VOD/Pay-Per-View <sup>125</sup>	\$1,279	\$1,288	0.7%	\$1,603	24.5%
Local Advertising	\$3,236	\$3,381	4.5%	\$3,652	8.0%
Home Shopping	\$329	\$354	7.6%	\$384	8.5%
Total Digital Tier	\$3,966	\$4,563	15.1%	\$5,192	13.8%
High-speed Internet	\$8,965	\$11,245	25.4%	\$13,112	16.6%
DVR Service	\$150	\$361	140.7%	\$712	97.2%
Circuit Switch and VoIP	\$1,623	\$2,158	33.0%	\$3,269	51.5%
Miscellaneous <sup>126</sup>	\$1,125	\$1,453	29.2%	\$1,611	10.9%
Business Services	\$2,551	\$3,411	33.7%	\$4,722	38.4%
<b>Total Revenue (mil.)</b>	<b>\$59,559</b>	<b>\$65,678</b>	<b>10.3%</b>	<b>\$72,945</b>	<b>11.1%</b>
Revenue Per Subscriber	\$910.69	\$1,007.33	10.6%	\$1,115.37	10.7%
<b>Operating Cash Flow (mil.)</b>	<b>\$23,239</b>	<b>\$25,684</b>	<b>10.5%</b>	<b>\$28,659</b>	<b>11.6%</b>
Cash Flow per Subscriber	\$355.34	\$393.93	10.9%	\$438.21	11.2%
<b>Cash Flow/Total Revenue</b>	<b>39.0%</b>	<b>39.1%</b>	<b>0.3%</b>	<b>39.3%</b>	<b>0.5%</b>

48. **Programming Costs.** Cable operators' combined program expenditures were \$12.68

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maturation that would justify use of more traditional valuation metrics. See 2003 Report, 19 FCC Rcd at 1627 ¶ 28 and n.72.

<sup>123</sup> Cable Databook at 137.

<sup>124</sup> Revenue data for VOD/pay-per-view, home shopping, DVR service, and business services for 2004 come from 2005 Cable Databook at 8-13. All other data come from the Cable Databook at 8-12 and 137. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. The 2006 data are Kagan estimates for year-end 2006.

<sup>125</sup> Includes VOD, subscription-video-on-demand ("SVOD"), near-video-on-demand ("NVOD"), and PPV.

<sup>126</sup> Miscellaneous revenues are derived by summing the revenues from the categories specifically listed in Table 5 and subtracting this sum from total revenue. Miscellaneous revenue categories currently include installation fees, high-definition set-top rentals, high-definition tiers, home networking, and other residential video.

billion in 2004 and \$15.80 billion in 2005; they were projected to increase to \$20.59 billion in 2006.<sup>127</sup> Cable programming expenditures include those for existing and new nonbroadcast networks,<sup>128</sup> the costs associated with producing or acquiring local and regional programming (including cable news and public affairs networks), payments for retransmission consent, and copyright fees. In 2005, cable operators spent \$136.0 million on copyright fees for broadcast signal carriage pursuant to Section 111 of the Copyright Act.<sup>129</sup>

49. **Cable System Transactions.** The aggregate value of cable transactions in any year depends on the number of transactions, the size of the cable systems involved, and the price paid. As shown in Table 6 below, there were 21 cable transactions proposed, but not necessarily completed, in 2005, involving more than 8.9 million basic subscribers and representing a total dollar value of \$31.3 billion.<sup>130</sup> The largest proposed transaction was the \$17.6 billion acquisition of Adelphia by Comcast and Time Warner.<sup>131</sup> In the first six months of 2006, there were 12 cable transactions proposed, but not necessarily completed, representing an aggregate value of \$1.4 billion.

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<sup>127</sup> NCTA Comments at 36. NCTA's calculation of programming expenditures includes license fees, copyright fees, and investments in local programming.

<sup>128</sup> In 2006, we identified 565 national nonbroadcast networks. See Section III.B.1.

<sup>129</sup> 17 U.S.C. § 111 *et seq.* Copyright Office, Library of Congress, *Licensing Division Report of Receipts*, Jan. 12, 2007.

<sup>130</sup> Cable Databook at 154.

<sup>131</sup> *Id.* Applications for Consent to the Assignment and/or Transfer of Control of Licenses from Adelphia Communications Corporation to Time Warner Cable Inc., and from Adelphia Communications Corporation to Comcast Corporation, 21 FCC Rcd 8203 (2006). Comcast and Time Warner completed the acquisition of Adelphia on July 31, 2006. See Comcast Corp., *Time Warner and Comcast Complete Adelphia Communications Transactions* (press release), July 31, 2006. See also Cris Isidore, *Adelphia Deal to Shuffle Cable*, CNN, Apr. 21, 2005, at <http://money.cnn.com/2005/04/21/technology/adelphia/index.htm> (visited Feb. 22, 2007).

**Table 6: System Transactions: 2003 - June 2006**<sup>132</sup>

	2003	2004	2005	Jan-June 2006
Number of Cable Transactions	34	21	21	12
Total Number of Subscribers	650,759	2,701,552	8,920,356	508,716
Average Number of Subscribers per Cable Transaction	19,140	128,645	424,779	42,393
Total Number of Households Passed Sold	1,132,772	4,626,831	17,636,898	1,092,918
Average Number of Households Passed per Cable Transaction	33,317	220,325	839,852	91,077
Total Dollar Value (mil.)	\$1,495	\$10,554	\$31,281	\$1,405
Average Value (mil.) of Cable Transaction	\$44	\$503	\$1,490	\$117
National Average Dollar Value per Subscriber	\$2,297	\$3,906	\$3,507	\$2,762
Dollar Value per Households Passed	\$1,319	\$2,281	\$1,774	\$1,286
Cash Flow Multiple	9.5	9.4	12.0	9.2

50. **Stock Prices.** Cable stock prices, as measured by the Kagan Cable MSO Average,<sup>133</sup> gained 4.6 percent from June 2005 to June 2006, while the S&P 500 gained 5.7 percent, and the NASDAQ 4.9 percent.<sup>134</sup> One analyst reported that, despite strong cash flow growth, cable stocks continue to trade at relatively depressed multiples of 9.0 times cash flow.<sup>135</sup>

#### 4. Capital Acquisition and Disposition

51. **Industry Financing.** Table 7 shows the amount of financing raised per year by source. In past years, much of the money raised by cable operators was used to upgrade and rebuild cable systems. In 2004 and 2005, the majority of money raised was used for refinancing.<sup>136</sup> Kagan reports that in 2005, cable companies spent \$2.3 billion repurchasing stock, and they reduced public debt by \$7.5 billion.<sup>137</sup>

<sup>132</sup> Data for 2003-2005 come from *Cable System Sales Summary (Annually Through December)*, Cable TV Investor, Jan. 31, 2006, at 14. Data for January to June 2006 come from *Cable System Sales Summary*, Cable TV Investor, July 31, 2006, at 14. The numbers for January to June 2006 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.

<sup>133</sup> The Kagan Cable MSO Average includes the following companies (stock symbol): Charter (CHTR), Rogers B (RG), Comcast (CMCSA), Pegasus (XAN), Comcast Sp. A (CMCSK), Cablevision (CVC), Mediacom (MCCC), Washington Post (WPO), Alaska Comm. Sys. (ALSK), General Comm. (GNCMA), Liberty Media Int. A (LINTA), Time Warner (TWX), Liberty Media Int. B (LINTB), NTL Inc. (NTLI).

<sup>134</sup> Cable TV Investor, July 29, 2005, at 19; Cable TV Investor, July 31, 2006, at 16.

<sup>135</sup> Cable TV Investor, July 31, 2006, at 1.

<sup>136</sup> Cable Databook at 136.

<sup>137</sup> *Id.* at 136, 141.

**Table 7: Acquisition of Capital: 2000 - June 2006 (\$ in millions)<sup>138</sup>**

Year	Private Debt <sup>139</sup>		Net New Public Debt		Private Equity (Private Placement and Venture Capital)		Public Equity (Common and Preferred)		Total Capital Raised In Year <sup>140</sup>
	Amount Raised	Percent of Total Raised in Year	Amount Raised	Percent of Total Raised in Year	Amount Raised	Percent of Total Raised in Year	Amount Raised	Percent of Total Raised In Year	
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%	\$21,251
2002	\$2,544	25.2%	\$3,942	39.0%	\$15	0.1%	\$3,608	35.7%	\$10,109
2003	\$1,791	66.5%	\$734	27.2%	\$116	4.3%	\$54	2.0%	\$2,695
2004	\$12,674	159.7%	-\$4,863	-61.3%	\$125	1.6%	\$0	0%	\$7,936
2005	\$1,008	-19.7%	-\$7,457	145.8%	\$1,334	-26.1%	\$0	0%	-\$5,115
Jan-June 2006	\$4,200	67.2%	\$1,900	30.4%	\$150	2.4%	\$0	0%	\$6,250

52. **Capital Expenditures/Capital Investment.** NCTA states that cable operators have invested over \$100 billion to construct advanced two-way fiber optic networks. Kagan estimates that cable companies spent \$10.6 billion on capital improvements in 2005 and will spend \$11.1 billion in 2006.<sup>141</sup> These investments have enabled cable operators to offer more channels of basic and digital cable services, premium movie services, pay-per-view service, high-definition service, high-speed Internet access services, CD-quality music, cable telephony, and more personalized programming options.

53. Capital expenditures for rebuilding and upgrading cable systems have been reduced in recent years as many cable systems have completed their two-way fiber optic networks.<sup>142</sup> In the first half of 2006, however, capital expenditures for customer premises equipment increased. Over the same period, the number of advanced service subscriptions grew.<sup>143</sup> Table 8 provides information regarding capital expenditures by major MSOs.

<sup>138</sup> Data for 2004 come from Cable Databook at 141. Data for January 2006 to June 2006 come from Cable TV Investor, July 31, 2006, 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 at 141.

<sup>139</sup> Kagan reports private debt as the sum private debt by acquisitions and private debt by other. *Id.*

<sup>140</sup> Total capital raised is the sum of private debt, net new public debt, private equity, and public equity. *Id.*

<sup>141</sup> Cable Databook at 137. See also NCTA Comments at 27.

<sup>142</sup> Rebuilds are significant improvements made to existing systems that do not retain a significant percentage 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>143</sup> See Mariam Rondeli, *HSD, Cable Telephony Headline Q2 Earnings Season*, Cable TV Investor, July 31, 2006, at 6-7.

**Table 8: Capital Expenditures by Major MSOs (\$ in millions)**

Operator	2005			Jan.-June 2006		
	Total <sup>144</sup>	Plant Upgrades	Customer Premises Equipment	Total	Plant Upgrades	Customer Premises Equipment
Comcast <sup>145</sup>	\$3,567	\$265	\$1,876	\$1,834	\$135	\$1,012
Time Warner <sup>146</sup>	\$1,975	\$132	\$866	\$1,066	\$47	\$536
Charter <sup>147</sup>	\$1,088	\$49	\$434	\$539	\$23	\$258
Cablevision <sup>148</sup>	\$695	\$8	\$450	\$469	\$2	\$302
Mediacom <sup>149</sup>	\$228	\$42	\$124	\$105	\$23	\$50

### 5. Advanced and Other Services

54. In addition to traditional analog video services, most cable operators offer subscribers advanced video services, including digital video, video-on-demand, DVRs, and high-definition television; and non-video advanced services, including high-speed Internet access and telephony (circuit-switched telephony and/or voice over Internet protocol telephony).<sup>150</sup> Mid-sized and smaller cable operators also are deploying advanced services. Our review of five mid-sized and smaller cable operators shows that all offer digital cable service and high-speed Internet service, and many offer high-definition television,

<sup>144</sup> Total capital expenditures include expenditures for customer premises equipment, scalable infrastructure, line extensions, plant upgrades and rebuilds, and support.

<sup>145</sup> Comcast Corp., *Comcast Reports Fourth Quarter and Year End 2005 Results* (press release), Feb. 2, 2006; Comcast Corp., *Comcast Reports Second Quarter 2006 Results* (press release), July 27, 2006.

<sup>146</sup> Time Warner Inc., *SEC Form 10-K/A (Amended Annual Report)*, filed Sept. 13, 2006, for the period ending Dec. 31, 2005; Time Warner Inc., *SEC Form 10-Q (Quarterly Report)*, filed Aug. 2, 2006, for the period ending June 30, 2006, at 34.

<sup>147</sup> Charter Communications Inc., *Charter Reports Fourth Quarter and Full-Year 2005 Financial and Operating Results* (press release), Feb. 28, 2006; Charter Communications Inc., *Charter Communications Reports Second-Quarter 2006 Financial and Operating Results* (press release), Aug. 8, 2006.

<sup>148</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2005 Results* (press release), Feb. 27, 2006; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Final Second Quarter 2006 Results and Files Restated Financial Statements for Prior Periods* (press release), Sept. 21, 2006.

<sup>149</sup> Mediacom Communications Corp., *Mediacom Communications Reports Results for Fourth Quarter and Full Year 2005* (press release), Feb. 23, 2006; Mediacom Communications Corp., *Mediacom Communications Reports Results for Second Quarter 2006* (press release), Aug. 9, 2006.

<sup>150</sup> Subscription data for advanced services shown in this *Report* are primarily for residential service, but also may include some small business service. Although most cable operators report business revenue separately, there may be telecommuters and businesses operating in households that are included in residential subscription data. *See also 2005 Report*, 21 FCC Rcd at 2525 ¶ 50 n.117.

video-on-demand, DVRs, and telephone service.<sup>151</sup>

55. **Digital Video Services.** Almost all households passed by cable systems can subscribe to digital video service. Most cable companies require digital cable subscribers to rent or buy a digital set-top box from them and then allow the customer to purchase one or more digital service tiers. Digital tiers provide a variety of programming similar to that offered in basic tiers, or theme tiers, such as a movie tier, a sports tier, and a non-English-language tier. Digital cable subscribers also may purchase one or more premium digital packages, such as HBO, Showtime, Cinemax, The Movie Channel, Starz!, and international programming.<sup>152</sup> A high-definition service tier also is available to many digital cable subscribers. In addition, cable operators are offering interactive digital services to digital cable subscribers, such as DVRs and video-on-demand.<sup>153</sup> Data from the 2005 Form 325 indicate that nearly 96 percent of households passed have access to digital video, and 85 percent of systems have digital video capability.<sup>154</sup> The number of digital cable subscribers increased from 25.4 million at the end of 2004, to 28.6 million at the end of 2005, a 12.6 percent increase.<sup>155</sup> NCTA states that the number of digital cable subscribers increased to 32.9 million at the end of June 2006.<sup>156</sup>

56. As shown in Table 9 below, as of June 2006, the five largest publicly-traded cable operators had sold digital cable services to between 35 and 73 percent of total basic cable subscribers.

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<sup>151</sup> The five cable operators are Mid-Hudson Cable, Northland Cable Television, Cebridge Connections, CableAmerica, and GCI.

<sup>152</sup> 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>153</sup> The digital video recorder service offered by cable operators requires a DVR set-top box.

<sup>154</sup> 2005 FCC Form 325 data.

<sup>155</sup> Cable Databook at 11; 2005 Cable Databook at 11.

<sup>156</sup> NCTA Comments at 27.

**Table 9: Digital Cable Subscribers for Top MSOs (in millions)**

Operator	2005		Jan.-June 2006	
	Digital Subscribers	Percent of Basic Cable Subs	Digital Subscribers	Percent of Basic Cable Subs
<b>Comcast</b> <sup>157</sup>	9.8	46%	10.5	49%
<b>Time Warner</b> <sup>158</sup>	5.4	49%	5.8	53%
<b>Cablevision</b> <sup>159</sup>	2.0	65%	2.3	73%
<b>Charter</b> <sup>160</sup>	2.8	48%	2.9	49%
<b>Mediacom</b> <sup>161</sup>	0.5	35%	0.5	35%

57. NCTA reports that, as of the end of June 2006, cable operators were carrying the digital broadcast signals of 788 broadcast television stations.<sup>162</sup> NCTA also states that an agreement between cable operators and public television stations ensures that local public television digital programming is being carried on cable systems throughout the country.<sup>163</sup>

58. **High-Definition Television (“HDTV”).** HDTV features dramatically improved, highly detailed picture quality; improved audio quality; and a wide-screen display. To obtain the full visual effect of HDTV, a cable subscriber also needs an HDTV set. By June 2006, 97 million households were passed by cable operators offering HDTV channels and additional HDTV programming using video-on-demand.<sup>164</sup> In addition to broadcast networks, 27 nonbroadcast networks now offer HDTV

<sup>157</sup> Comcast Corp., *Comcast Reports Fourth Quarter and Year End 2005 Results* (press release), Feb. 2, 2006; Comcast Corp., *Comcast Reports Second Quarter 2006 Results* (press release), July 27, 2006.

<sup>158</sup> Time Warner Inc., *SEC Form 10-K/A (Amended Annual Report)* filed Sept. 13, 2006 for period ending Dec. 31, 2005, at 24; Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2006 Results* (press release), Aug. 2, 2006.

<sup>159</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2005 Results* (press release), Feb. 27, 2006; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2006 Selected Operating and Financial Measures* (press release), Aug. 8, 2006.

<sup>160</sup> Charter Communications Inc., *Charter Reports Fourth Quarter and Full-Year 2005 Financial and Operating Results* (press release), Feb. 28, 2006; Charter Communications Inc., *Charter Reports Second Quarter 2006 Financial and Operating Results* (press release), Aug. 8, 2006.

<sup>161</sup> Mediacom Communications Corp., *Mediacom Communications Reports Results for Fourth Quarter and Full Year 2005* (press release), Feb. 23, 2006; Mediacom Communications Corp., *Mediacom Communications Reports Results for Second Quarter 2006* (press release), Aug. 9, 2006.

<sup>162</sup> NCTA Comments at 29.

<sup>163</sup> NCTA Comments at 29. See also NCTA, *Public Television and Cable Announce Major Digital Carriage Agreement* (press release), Jan. 31, 2005.

<sup>164</sup> NCTA Comments at 28.

programming.<sup>165</sup>

59. Comcast offers about 20 HDTV channels, including all major broadcast networks, Discovery HD, Universal HD, TNT HD, ESPN HD, and ESPN2 HD; and premium HD networks such as HBO, Cinemax, Starz, and Showtime.<sup>166</sup> Comcast plans to offer up to 35 HDTV channels in 2007, as well as 100 hours of HDTV video-on-demand programming.<sup>167</sup> Cox offers HDTV programming from nonbroadcast networks, local public broadcasting stations, and local broadcast network affiliates.<sup>168</sup> Time Warner offers HDTV programming from local broadcast networks and HDTV movies from HBO and Showtime.<sup>169</sup> Cablevision offers 22 HDTV channels and has 455,000 subscribers, a 114 percent increase in one year.<sup>170</sup> Charter offers the HDTV programming provided by local broadcast stations and HDTV movies from HBO and Showtime.<sup>171</sup> Mediacom offers local broadcast stations' HDTV programming and the HDTV programming from HBO, Showtime, Starz, and The Movie Channel.<sup>172</sup>

60. **Video-on-Demand (“VOD”).** VOD allows subscribers to order programming from a central server at any time of day, and to fast-forward, rewind, and pause the programs.<sup>173</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 programs. 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 and a means to help reduce subscriber turnover rate (i.e., churn). One analyst estimates that 29 million households now use VOD service.<sup>174</sup>

61. Comcast provides almost 8,000 VOD programs each month, and 95 percent of these programs are available at no additional charge to digital subscribers.<sup>175</sup> In 2005, Comcast's VOD

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

<sup>166</sup> Comcast Comments at 66-67.

<sup>167</sup> *Id.*

<sup>168</sup> Cox Reply at 4.

<sup>169</sup> See Time Warner Cable, at <http://www.timewarnercable.com/corporate/products/digitalcable/hdtv.html> (visited Feb. 2, 2007).

<sup>170</sup> Cablevision Systems Corp., *WWOR-TV My9 is the Latest Addition to Cablevision's Industry-Leading High Definition Lineup* (press release), Sept. 20, 2006.

<sup>171</sup> See Charter Communications Inc., at <http://www.charter.com/Visitors/Products.aspx?ProductItem=6> (visited Jan. 26, 2007).

<sup>172</sup> See Mediacom Communications Corp., at [http://www.mediacomcc.com/cable\\_hdtv.html](http://www.mediacomcc.com/cable_hdtv.html) (visited Jan. 26, 2007).

<sup>173</sup> VOD differs from PPV. PPV is a pay television service for which cable subscribers pay a one time fee for each program viewed. The programs are generally available at pre-set times and in some cases are time shifted across several channels to increase the opportunity for viewing. Once initiated, the program cannot be paused, rewound or fast-forwarded.

<sup>174</sup> NCTA Comments at 30.

<sup>175</sup> Comcast Comments at 62.

subscribers watched more than 1.4 billion VOD programs, and on average, subscribers used the service more than 20 times per month.<sup>176</sup> Cox's VOD service provides more than 1,000 hours of a combination of free, pay-per-view, and subscription programming and is available to almost 60 percent of the households passed by Cox cable systems.<sup>177</sup> Cable operators are using VOD to offer locally oriented programming. Time Warner, for example, is offering local programming on about two-thirds of its systems.<sup>178</sup> Cablevision's VOD service provides more than 1,800 hours of programming and the company recently announced the addition of first-run broadcast television series from NBC.<sup>179</sup> Charter VOD service is available to more than 65 percent of Charter's 2.8 million digital video customers nationwide.<sup>180</sup> Charter has been upgrading its VOD video servers to increase the speed of delivery of VOD programming.<sup>181</sup> Charter's VOD service offers more than 1,200 hours of programming.<sup>182</sup> Mediacom's VOD service offers nearly 700 different VOD movies and programs each month.<sup>183</sup>

62. **Digital Video Recorders ("DVRs").** The DVR service offered by cable operators allows subscribers to select programs from a program guide and record these programs onto a hard drive that is often built into the digital set-top box. Typically, DVR service can record two shows at the same time, and subscribers can watch one recorded program while recording another.<sup>184</sup> The newest digital set-top boxes provide HDTV, VOD, and DVR capability in the same unit. DVR recorded programs can be played back at any time. A DVR has more features than a VHS recorder, including the ability to pause, and then restart, live television programming. NCTA states that every major cable operator offers DVR service.<sup>185</sup> In May 2006, 12 percent of households that subscribe to cable also subscribed to cable DVR service.<sup>186</sup>

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<sup>176</sup> *Id.*

<sup>177</sup> Cox Reply at 4.

<sup>178</sup> NCTA Comments at 31. In a recent agreement with the North Carolina High School Athletic Association, Time Warner made available, for free, all eight football championship games on its VOD service. Time Warner Inc., *Time Warner Cable Reaches Agreement with the North Carolina High School Athletic Association to Televisе High School Sports Championship Games Live and On Demand* (press release), Nov. 7, 2006.

<sup>179</sup> Cablevision Systems Corp., *Popular NBC Broadcast Series Now Available to iO Customers On Demand* (press release), Sept. 28, 2006. Individual shows from *Law & Order SVU*, *Law and Order CI*, *The Office*, *Friday Night Lights*, and *Las Vegas* can be watched on Cablevision's VOD service on the day after they first appear on NBC at a price of 95 cents for a 24-hour rental. *Id.*

<sup>180</sup> Charter Communications Inc., *Charter Offers Southeast Division Customers Expanded On-Demand Content Through Broadbus Platform* (press release), Apr. 4, 2006.

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

<sup>182</sup> NCTA Comments at 31.

<sup>183</sup> See Mediacom Communications Corp., at [http://www.mediacomcc.com/cable\\_ppv.html](http://www.mediacomcc.com/cable_ppv.html) (visited Jan. 26, 2007).

<sup>184</sup> See, e.g., Time Warner Cable, at <http://www.timewarnercable.com/corporate/products/digitalcable/dvr.html> (visited Jan. 26, 2007).

<sup>185</sup> NCTA Comments at 30.

<sup>186</sup> NCTA, *Competition Works, Consumers Win*, at [http://i.ncta.com/ncta\\_com/PDFs/Consumers\\_Win\\_01.31.06.pdf](http://i.ncta.com/ncta_com/PDFs/Consumers_Win_01.31.06.pdf) (visited Feb. 6, 2007).

63. Comcast's DVR service allows subscribers to record up to 80 hours of standard-definition programming, and up to 15 hours of HDTV programming.<sup>187</sup> Comcast is also working with TiVo to include its DVR features in Comcast's set-top boxes. The companies have developed a software application that will enable Comcast to deploy TiVo's DVR features to compatible set-top boxes without an additional in-home visit by a technician.<sup>188</sup> Cox also has signed an agreement with TiVo to develop software that will enable Cox to deliver TiVo's DVR features to compatible set-top boxes without replacing existing DVR boxes, and without an installation appointment.<sup>189</sup> Time Warner also offers "Start Over" service, which allows digital cable subscribers to restart certain programs being aired from the beginning.<sup>190</sup> The free Start Over service, which does not require a DVR, lets viewers pause and rewind shows in progress but does not permit them to fast-forward through commercials or keep copies of programs. Cablevision's DVR set-top boxes can record up to 100 hours of standard-definition programming and up to 24 hours of HDTV programming.<sup>191</sup> Charter also offers DVR service with features similar to that of other cable operators.<sup>192</sup> Mediacom's DVR set-top boxes can record up to 60 hours of standard digital programming or 15 hours of HDTV programming.<sup>193</sup>

64. **High-Speed Internet Service.** As of June 30, 2006, approximately 93 percent of households passed by cable systems had access to cable high-speed Internet service, and 79 percent of households passed by incumbent local telephone systems had access to DSL.<sup>194</sup> Cable, DSL, wireline, and wireless technologies provided high-speed Internet service to 50.2 million residential subscribers at the end of 2005.<sup>195</sup> Cable modems provided 55.2 percent of that total, DSL provided 40.1 percent, and other wireline, fiber, and wireless technologies provided the remaining 4.7 percent.<sup>196</sup> Cable's share has

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<sup>187</sup> Comcast Comments at 67.

<sup>188</sup> *Id.* at 67-68. See also Comcast Corp., *Comcast and TiVo Demonstrate Integrated DVR Services at CES* (press release), Jan. 8, 2007.

<sup>189</sup> Cox Communications, *Cox Communications and TiVo Announce Deployment Agreement: Cox to Deploy TiVo's DVR and Advertising Software* (press release), Aug. 24, 2006.

<sup>190</sup> NCTA Comments at 31. See also *Time Warner Cable Plans to Triple Number of 'Start Over' Markets*, COMM. DAILY, Jan. 30, 2007, at 7-8.

<sup>191</sup> See Cablevision Systems Corp., at <http://www.optimum.com/io/dvr/dvr.jsp> (visited Jan. 26, 2007). Cablevision's introduction of a remote DVR service that provides subscribers with full DVR functionality without the need for a set-top box in their homes has been slowed by a recent court decision that requires Cablevision to obtain licenses from the programmers it carries. See *Twentieth Century Fox Film Corp. v. Cablevision Systems Corp.*, 478 F.Supp.2d 607, (S.D.N.Y., March 22, 2007).

<sup>192</sup> See Charter Communications Inc., at <http://www.charter.com/Visitors/Products.aspx?ProductItem=7> (visited Jan. 26, 2007).

<sup>193</sup> See Mediacom Communications Corp., at [http://www.mediacomcc.com/cable\\_dvr.html](http://www.mediacomcc.com/cable_dvr.html) (visited Jan. 26, 2007).

<sup>194</sup> FCC, *High-Speed Services for Internet Access: Status as of June 30, 2006*, Jan. 2007, at 3 and Table 14. This report and previous releases of the *High-Speed Services for Internet Access* report are available at <http://www.fcc.gov/wcb/iatd/comp.html> (visited Feb. 1, 2007).

<sup>195</sup> *Id.* at Table 3.

<sup>196</sup> *Id.* at Chart 6. NCTA states that 58.9 percent of all high-speed Internet households use cable modems, while 38.3 percent use DSL. NCTA Comments at 39.

declined from 61 percent at the end of June 2005, while DSL's has increased from 37.2 percent at the end of June 2005.<sup>197</sup> Kagan states that cable companies and telephone companies are competing for high-speed Internet subscribers using faster speeds and promotional offers.<sup>198</sup> According to Kagan, DSL has been winning more new subscribers in recent months, relative to cable, due to aggressive pricing discounts.<sup>199</sup> Most cable operators provide high-speed Internet service with one proprietary Internet Service Provider ("ISP") specifically created and owned by the cable operator.<sup>200</sup> Although subscribers to cable systems may use another ISP (e.g., AOL, Earthlink, or NetZero), they often must pay both for the proprietary service and again for the other ISP. Time Warner and Comcast, however, appear to offer Earthlink broadband online service without requiring subscribers to pay twice.<sup>201</sup> AOL's new free service offers all cable high-speed Internet subscribers the option of using AOL as their ISP without requiring subscribers to pay for more than the price of their cable high-speed Internet service.<sup>202</sup>

65. As shown in Table 10 below, as of June 2006, the high-speed Internet penetration rate<sup>203</sup> of five large cable operators is between 18 percent and 42 percent.<sup>204</sup>

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<sup>197</sup> FCC, *High-Speed Services for Internet Access: Status as of June 30, 2005*, April 2006, Chart 6.

<sup>198</sup> Cable Databook at 63.

<sup>199</sup> *Id.*

<sup>200</sup> For example, Comcast offers the service under the "Comcast High-Speed Internet" brand name; Cox offers the service under the "Cox High Speed Internet" brand name; Time Warner Cable offers subscribers its high-speed Internet service under its "Road Runner High-Speed Online" brand name; Cablevision offers high-speed Internet service under the brand "Optimum Online"; Charter offers the service under the "Charter High-Speed Internet" brand name; and Mediacom offers the service under the "Mediacom Online" brand name.

<sup>201</sup> See Earthlink, at <http://www.earthlink.net/highspeed/pricing/?id=cable> (visited Jan. 29, 2007). See also Earthlink, *Earthlink and Time Warner Cable Reach Agreement to Continue to Offer Earthlink Broadband Service to Time Warner Cable Customers* (press release), July 5, 2006. The FTC Consent Decree in the AOL/Time Warner transaction, which has since expired, required Time Warner Cable to carry at least three unaffiliated ISPs before offering AOL to its subscribers. See Federal Trade Commission, *FTC Approves AOL/Time Warner Merger with Conditions* (press release), Dec. 14, 2000, at <http://www.ftc.gov/opa/2000/12/aol.htm> (visited Mar. 28, 2007).

<sup>202</sup> See AOL, at [http://free.aol.com/thenewaol/plan\\_choice.adp](http://free.aol.com/thenewaol/plan_choice.adp) (visited Jan. 29, 2007).

<sup>203</sup> Although there is no standard method for reporting penetration rates for advanced services, high-speed Internet service, penetration rates usually are calculated by dividing the number of high-speed Internet subscribers by the number households 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 household passed by a cable system. Cablevision, however, has completed its system upgrade and makes high-speed Internet service available to all households 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 households passed by its cable system. Mediacom also reports its penetration rate in terms of the number of households passed by its cable system.

<sup>204</sup> Cox reports more than 3.2 million subscribers to its high-speed Internet service. Cox Reply at 6.

**Table 10: High-Speed Internet Subscriptions**

	<b>Subscribers Dec. 31, 2005 (millions)</b>	<b>Subscribers June 30, 2006 (millions)</b>	<b>Penetration Rate June 30, 2006</b>
Comcast <sup>205</sup>	8.5	9.3	22%
Time Warner <sup>206</sup>	4.8	5.4	27%
Cablevision <sup>207</sup>	1.7	1.9	42%
Charter <sup>208</sup>	2.2	2.4	21%
Mediacom <sup>209</sup>	0.5	0.5	18%

66. The standard downstream speed for most cable high-speed Internet service is 6 Mbps.<sup>210</sup> Some cable operators offer additional high-speed Internet tiers with faster speeds for higher prices and lower speeds for lower prices.<sup>211</sup> Cable operators also offer a variety of features with their high-speed Internet services, including storage capacity; multiple e-mail accounts; integrated security suites with anti-virus, anti-spyware, and firewall protection; pop-up blocking and spam filtering; specialized content; and home networking. Comcast offers 6 Mbps downstream and 384 Kbps upstream for \$42.95 per month and 8 Mbps downstream and 768 Kbps upstream for \$52.95 per month.<sup>212</sup> Comcast also provides a service called PowerBoost, which doubles the speed of a subscriber's broadband connection when

<sup>205</sup> Comcast Corp., *Comcast Reports Second Quarter 2006 Results* (press release), July 27, 2006; Comcast Corp., *Comcast Reports Fourth Quarter and Year End 2005 Results* (press release), Feb. 2, 2006.

<sup>206</sup> Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2006 Results* (press release), Aug. 2, 2006; Time Warner Inc., *SEC Form 10-K/A (Amended Annual Report)*, filed Sept. 13, 2006 for the period ending Dec. 31, 2005, at 24.

<sup>207</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2006 Results and Files Restated Financial Statements for Prior Periods* (press release), Sept. 21, 2006; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2005 Results* (press release), Feb. 27, 2006.

<sup>208</sup> Charter Communications Inc., *Charter Reports Second Quarter 2006 Financial and Operating Results* (press release), Aug. 8, 2006; Charter Communications Inc., *Charter Reports Fourth Quarter and Full-Year 2005 Financial and Operating Results* (press release), Feb. 28, 2006.

<sup>209</sup> Mediacom Communications Corp., *Mediacom Communications Reports Results for Second Quarter 2006* (press release), Aug. 9, 2006; Mediacom Communications Corp., *Mediacom Communications Reports Results for Fourth Quarter and Full Year 2005* (press release), Feb. 23, 2006.

<sup>210</sup> NCTA Comments at 42.

<sup>211</sup> *Id.* at 43.

<sup>212</sup> See Comcast, Corp., at [http://media.corporate-ir.net/media\\_files/irol/14/147565/Hi\\_Speed.pdf](http://media.corporate-ir.net/media_files/irol/14/147565/Hi_Speed.pdf) (visited Jan. 29, 2007).

downloading a large file (e.g., a movie or video file).<sup>213</sup> Cox recently announced speed increases in the majority of its markets.<sup>214</sup> Specifically, it has increased speeds to 7 Mbps downstream and 512 Kbps upstream for \$41.99 per month and 10-15 Mbps downstream and 1 Mbps upstream for \$56.99 per month.<sup>215</sup> Cox also provides the PowerBoost service without additional cost to its high-speed Internet subscribers.<sup>216</sup> Time Warner's "Road Runner" high-speed Internet service provides 5 Mbps downstream at rates starting at \$39.95 per month.<sup>217</sup> In 2006, Cablevision increased the speed of its Internet service to up to 15 Mbps downstream and 2 Mbps upstream.<sup>218</sup> Cablevision also offers "Optimum Online Boost," which increases downstream speeds of up to 30 Mbps and upstream speeds of 5 Mbps for an additional \$14.95 per month.<sup>219</sup> In addition, Cablevision offers a special order high-speed Internet service, "Optimum Online Ultra," which offers 50 Mbps both downstream and upstream for about \$200 per month.<sup>220</sup> In 2006, Charter's high-speed Internet service increased speeds to 10 Mbps downstream and 1 Mbps upstream.<sup>221</sup> Charter also offers 3 Mbps and 5 Mbps tiers of high-speed Internet service.<sup>222</sup> Mediacom offers 10 Mbps for \$59.95 per month and 5 Mbps for \$45.95 per month.<sup>223</sup>

67. **Telephony Offered by Cable Operators.** Cable companies are offering facilities-based

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<sup>213</sup> Comcast Comments at 69. See also Comcast Corporation, *Comcast Boosts Customers Broadband Speeds with New Network Technology* (press release), June 1, 2006.

<sup>214</sup> Cox Communications, *Cox High Speed Internet Customers Enjoying Dramatically Faster Speeds and Enhancements* (press release), Oct. 11, 2006.

<sup>215</sup> *Id.* See also Cox Communications, at <http://www.cox.com/fairfax/highspeedinternet/rates.asp> (visited Jan. 29, 2007).

<sup>216</sup> Cox Communications, *Cox High Speed Internet Customers Enjoying Dramatically Faster Speeds and Enhancements* (press release), Oct. 11, 2006.

<sup>217</sup> Time Warner Cable, *Road Runner Celebrates Its Ten Year Anniversary* (press release), Sept. 18, 2006. See also Time Warner Cable, at <http://www.timewarnercable.com/corporate/products/highspeedinternet/roadrunner.html> (visited Jan. 30, 2007).

<sup>218</sup> Cablevision Systems Corp., *Cablevision's Optimum Online Surpasses 2 Million Customers* (press release), Dec. 14, 2006; Cablevision Systems Corp., *Optimum Online Completes Significant Value-Added Speed Increase for All Customers* (press release), June 21, 2006. See also Cablevision Systems Corp., *Cablevision Posts '07 Prices* (Cablevision -- message board), Nov. 17, 2006, at [http://www.lightreading.com/document.asp?doc\\_id=110950&site=cdn](http://www.lightreading.com/document.asp?doc_id=110950&site=cdn) (visited Jan. 30, 2007). In last year's Report we stated that Cablevision charged \$44.95 per month for its high-speed Internet service. *2005 Report*, 21 FCC Rcd 2535 ¶ 65.

<sup>219</sup> Cablevision Systems Corp., *Cablevision's Optimum Online Surpasses 2 Million Customers* (press release), Dec. 14, 2006.

<sup>220</sup> *Id.*

<sup>221</sup> Charter Communications Inc., *Charter Rolls Out Enhanced High-Speed Internet Service; Faster 10 Mbps Download Speed and Advanced Security Suite Improve the Internet Experience for Customers* (press release), Sept. 21, 2006.

<sup>222</sup> *Id.*

<sup>223</sup> See Mediacom Communications Corp., at [http://www.mediacomcc/internet\\_max.html](http://www.mediacomcc/internet_max.html) and at [http://www.mediacomcc/internet\\_online.html](http://www.mediacomcc/internet_online.html) (visited Jan. 30, 2007).

local telephone service using circuit-switched technology and voice-over-Internet protocol (“VoIP”) technology.<sup>224</sup> Kagan estimated that, at the end of 2005, 5.7 million cable subscribers purchased cable telephony service and projected that by the end of 2006, cable companies would provide local phone service to 8 percent of all U.S. households.<sup>225</sup> NCTA states that cable telephony service is currently available to 73 percent of households and that 8.5 million households subscribe to the service.<sup>226</sup>

68. Comcast’s telephone service is currently available to approximately 80 percent of the households passed by its cable systems, and 2.1 million households subscribe to the service.<sup>227</sup> Cox provides telephone service in all of its cable systems, using both circuit-switched and VoIP technologies and currently has more than 2 million residential telephone subscribers.<sup>228</sup> Cox states that its telephone service is a full life-line service and the network architecture does not require an Internet connection.<sup>229</sup> Time Warner has deployed digital phone service in each of its 31 divisions using VoIP technology and has 1.6 million digital telephone subscribers.<sup>230</sup> Cablevision VoIP telephone service has over 1 million subscribers.<sup>231</sup> More than half of its high-speed Internet subscribers also subscribe to Cablevision’s VoIP telephone service.<sup>232</sup> As part of its telephone service, Cablevision offers an international calling plan that allows subscribers to call anywhere in the world for \$19.95 per month.<sup>233</sup> Charter offers VoIP telephone service to 3.9 million households and plans to offer VoIP telephone service to between 6 million and 8 million households by the end of 2006.<sup>234</sup> Charter’s VoIP telephone service has over 191,000 subscribers.

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<sup>224</sup> A circuit-switched cable telephony voice call and an IP telephony voice call provided by a cable operator 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 the public switched telephone network (“PSTN”), while IP telephony turns the call over to an Internet IP gateway for IP processing onto the PSTN or a managed IP Network. IP telephony processes voice telephone calls much like data on the Internet; that is, digitized pieces of data are divided into discrete packets and are transported over an IP network following any path that does not resist transfer.

<sup>225</sup> Cable Databook at 11 and 63.

<sup>226</sup> NCTA Comments at 45.

<sup>227</sup> Comcast Comments at 71-72.

<sup>228</sup> Cox Reply at 5.

<sup>229</sup> *Id.*

<sup>230</sup> Letter from Arthur H. Harding, Counsel for Time Warner, Inc., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 05-192 (Nov. 10, 2005) at 4. Time Warner Cable, *Time Warner Cable Digital Phone Service Can Support Monitoring of ADT Security Systems* (press release), Oct. 30, 2006.

<sup>231</sup> Cablevision Systems Corp., *Cablevision’s Optimum Voice Surpasses One Million Customers* (press release), July 18, 2006.

<sup>232</sup> *Id.*

<sup>233</sup> *Id.*

<sup>234</sup> Charter Communications Inc., *Charter Ramps Up Telephone Launches: Add 1 Million Homes Passed in Seven New Markets; Now Serves 191,000 Phone Customers* (press release), Apr. 17, 2006.

Charter also offers an unlimited calling plan to anywhere in Mexico for \$59.99 per month.<sup>235</sup>

69. Some cable companies have added mobile phone service to their telephony offerings. In November 2005, Comcast, Time Warner, Cox, and Advanced/Newhouse formed a joint venture with Sprint/Nextel to provide wireless telephone service.<sup>236</sup> In the fall of 2006, these same cable companies and Sprint/Nextel formed a joint venture named SpectrumCo and acquired wireless spectrum licenses that provide a nationwide footprint.<sup>237</sup> Comcast recently introduced wireless telephone service through its partnership with Sprint Nextel in Boston, Massachusetts, and Portland, Oregon.<sup>238</sup>

70. **Bundling.** Cable companies are combining video, high-speed Internet, and telephone services into bundles of two or three products and offering them at discounted introductory prices and/or savings on long-term prices, when compared with the price of buying each service separately. For example, some cable companies are offering a three-product bundle of video, high-speed Internet, and telephone service for \$99 per month.<sup>239</sup> Cox claims that subscribers to its bundle of all three services can save up to 11 percent off the price of buying each service separately.<sup>240</sup> For subscribers with one service, cable companies often offer discounted introductory prices to encourage purchase of a second service. For example, Cox basic cable video subscribers can purchase digital cable service, high-speed Internet service, or telephone service at a discounted price for the first three months.<sup>241</sup> Cox maintains that bundling multiple services has increased the number of new subscribers and reduced the loss of existing subscribers.<sup>242</sup> Comcast credits its telephone service as driving its success in selling the triple bundle of video, high-speed Internet, and voice service.<sup>243</sup> Since the launch of digital telephone service, Comcast states that all of the company's digital services have experienced increased penetration rates.<sup>244</sup>

71. Cable companies also are combining video, high-speed Internet, and telephone services to attract business subscribers. For example, Charter offers the "Charter Business Bundle," which

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<sup>235</sup> Charter Communications Inc., *Charter Telephone Introduces Unlimited Calling to Mexico For Customers in Southern California* (press release), July 12, 2006.

<sup>236</sup> Time Warner Cable, *Cable Consortium Acquires Spectrum Licenses Covering National Footprint* (press release), Oct. 5, 2006.

<sup>237</sup> *Id.* See also Comcast Comments at 72-73.

<sup>238</sup> Comcast Comments at 72.

<sup>239</sup> Comcast Comments at 71; Cox Reply Comments at 1-2; and Cable Databook at 63. See also Cox Communications, at <http://www.cox.com/fairfax/bundle.asp> (visited Jan. 31, 2007).

<sup>240</sup> See Cox Communications, at <http://www.cox.com/fairfax/bundle.asp> (visited Jan. 31, 2007).

<sup>241</sup> See Cox Communications, at <http://www.cox.com/fairfax/promotions/default.asp> (visited Jan. 31, 2007).

<sup>242</sup> Cox Communications, *A Decade of Bundling Delivers Cox Communications Considerable Competitive Advantages* (press release), Jan. 30, 2007.

<sup>243</sup> Cablevision Systems Corp., *Cablevision's Optimum Voice Surpasses One Million Customers* (press release), July 18, 2006.

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

includes “Charter Business Video” and Charter Business Internet Plus,” for \$99.99 per month.<sup>245</sup> Cablevision offers a bundle of high-speed Internet and telephone service called “Optimum Double Play,” which it claims can save businesses up to 60 percent compared to AT&T and Verizon.<sup>246</sup> Cox states that the greater availability of telephone service to business has resulted in a 28 percent increase in business subscribers in the past year.<sup>247</sup>

72. **Mid-sized and Smaller Cable Operators.** The FCC Form 325 collects data from a random sample of cable systems with between 5,000 and 20,000 subscribers and a random sample of cable systems with fewer than 5,000 subscribers. Findings from 2005 Form 325 data show that, for systems with between 5,000 and 20,000 subscribers, 96 percent offer digital cable service, 96 percent offer high-speed Internet service, 25 percent offer telephone service, and 74 percent have capacities of 750 MHz or greater. For systems with 5,000 or fewer subscribers, 43 percent offer digital cable service, 34 percent offer high-speed Internet service, 5 percent offer telephone services, and 22 percent have cable plants with capacities of 750 MHz or greater.<sup>248</sup>

73. Last year, we examined six mid-sized and smaller cable operators to identify the advanced services they provided.<sup>249</sup> This year, we examine five other cable operators and identify their offered advanced services.<sup>250</sup> All provide digital video service, but not all offer VOD, HDTV, and DVR service. All provide high-speed Internet service, and most provide telephone service. Mid-Hudson Cable serves Catskill, New York, and offers a full range of advanced services that include digital video, HDTV, VOD, DVR, high-speed Internet service, and digital telephone service.<sup>251</sup> Northland Cable Television operates smaller market cable systems in Georgia, South Carolina, North Carolina, Mississippi, Alabama, Texas, Washington, California, and Idaho.<sup>252</sup> Northland offers digital video service, high-speed Internet service, and digital telephone service, but does not appear to offer HDTV, VOD, or DVR service.<sup>253</sup> Cebridge Connections provides cable service to more than 1.3 million subscribers in 15 states and offers digital video service, HDTV, DVR, high-speed Internet service, and telephone service, but does not appear to offer VOD.<sup>254</sup> Like Cebridge, GCI, which operates cable systems in Alaska, offers digital video

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<sup>245</sup> Charter Communications Inc., *Charter Business Introduces the Charter Business Bundle* (press release), June 1, 2006.

<sup>246</sup> See Cablevision Systems Corp., at <http://www.optimum.com/business/ool/dp.jsp> (visited Jan. 31, 2007).

<sup>247</sup> Cox Communications, *Business Customers Fuel Cox’s Strong Third Quarter* (press release), Nov. 6, 2006.

<sup>248</sup> 2005 FCC Form 325 data.

<sup>249</sup> *2005 Report*, 21 FCC Rcd at 2537-38 ¶¶ 68-69.

<sup>250</sup> The five mid-sized and smaller cable companies include Mid-Hudson Cable, Northland Cable Television, Cebridge Connections, CableAmerica, and GCI.

<sup>251</sup> See Mid-Hudson Cable, at <http://www2.mhcable.com/index.html> (visited Apr. 20, 2007).

<sup>252</sup> See Northland Cable Television, at <http://www.northlandcabletv.com/> (visited Apr. 20, 2007).

<sup>253</sup> See Northland Cable Television, at <http://www.northlandcabletv.com/products/cable/default.asp?area=&office=> (visited Apr. 20, 2007).

<sup>254</sup> See Cebridge Connections, at [https://www.cebridge.net/cebridge/ctl?vo=pager&page=about\\_us/about\\_us.vm](https://www.cebridge.net/cebridge/ctl?vo=pager&page=about_us/about_us.vm) (visited Apr. 20, 2007).

service, HDTV, DVR, high-speed Internet service, and digital telephone service, but does not appear to offer VOD.<sup>255</sup> CableAmerica serves 50,000 subscribers in Arizona, California, Michigan, and Missouri.<sup>256</sup> CableAmerica offers digital video service, HDTV, VOD, DVR, and high-speed Internet service, but does not appear to offer VOD or telephone service.<sup>257</sup>

## B. Direct-to-Home Satellite Service

### 1. Direct Broadcast Satellite

74. 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>258</sup> There are three licensed U.S. DBS operators: DIRECTV, EchoStar (marketed as the “DISH Network”), and Dominion Video Satellite, Inc. (marketed as “Sky Angel”).<sup>259</sup>

75. **Subscribership.** As of June 2006, approximately 27.97 million U.S. households subscribed to DBS service. This represents an increase of 7.1 percent over the 26.12 million DBS

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<sup>255</sup> See GCI, at <http://www.gci.com/> (visited Apr. 20, 2007).

<sup>256</sup> See CableAmerica, at <http://www.cableamerica.com/corp.hist.html> (visited Apr. 20, 2007).

<sup>257</sup> See CableAmerica, at <http://www.cableamerica.com/> (visited Apr. 20, 2007).

<sup>258</sup> 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. See also *2004 Report*, 20 FCC Rcd at 2792 ¶ 53. We note that this definition of DBS does not cover services offered in the Ka-band, although DBS operators are already beginning to use this frequency band to provide direct-to-home video services to subscribers.

<sup>259</sup> DBS services operate in the 12.2-12.7 GHz frequency band. See 47 C.F.R. § 25.201 and 25.202(a)(7). DIRECTV is authorized to provide DBS service using 11 channels at the 119° W.L. orbital location, three channels at the 110° W.L. orbital location, and 32 channels at the 101° W.L. orbital location. EchoStar, through its affiliates, is authorized to provide DBS service using 21 channels at the 119° W.L. orbital location and 29 channels at the 110° W.L. orbital location. Combined, these two Commission-licensed DBS providers operate from all three full-CONUS orbital locations using all 96 channels assigned to these locations for DBS service. There currently are two or more operational DBS satellites at each of the three full-CONUS locations that, in combined operation, use all 32 channels at each station. See *Amendment of the Commission’s Policies and Rules for Processing Applications in the Direct Broadcast Satellite Service*, 21 FCC Rcd 9443 (2006) (“*DBS NPRM*”). Dominion holds licenses for eight channels at the 61.5° W.L. orbital position. The Commission has authorized EchoStar and Dominion Video, Inc. (“Dominion”) to provide service from the 32 channels at the 61.5° W.L. orbital location serving the eastern United States. EchoStar is assigned 22 channels at the location, and operates pursuant to special temporary authority on an additional two channels. The eight Dominion channels are operated by EchoStar and Dominion, through a commercial arrangement, over the EchoStar-3 satellite. EchoStar is authorized to provide service from the 32 channels at the 148° W.L. orbital location, serving the western United States. It is operating two satellites at that location on all 32 channels. *DBS NPRM*, 21 FCC Rcd at 9540 ¶ 14. Both DIRECTV and EchoStar lease additional capacity on FSS and BSS satellites. Additionally, GlobeCast WorldTV, a subsidiary of France Telecom, delivers a DTH subscription package of foreign channels directly to U.S. customers on the FSS Intelsat 5 satellite.

subscribers we reported last year.<sup>260</sup> DBS accounts for approximately 29.2 percent of all U.S. MVPD subscribers.<sup>261</sup>

76. DIRECTV is the largest DBS provider and second largest MVPD.<sup>262</sup> It served 15.51 million subscribers as of June 2006, an increase of 843,000, or 5.7 percent, from the 14.67 million subscribers it had as of June 2005.<sup>263</sup> This compares with growth of 12.5 percent reported in the previous year. As of June 2006, EchoStar was the second largest DBS provider and third largest MVPD, with approximately 12.46 million subscribers as of June 30, 2006, an increase of approximately 1 million, or almost 9 percent, over the 11.45 million subscribers it had a year earlier.<sup>264</sup> In 2005, EchoStar reported growth of 13 percent. Dominion Video Satellite's Sky Angel service serves fewer than 500,000 subscribers.<sup>265</sup>

77. **Financial Information.** Analysts attribute DBS's continued growth to higher than expected new subscribership, lower churn than expected for existing subscribers, and higher revenue yields per customer.<sup>266</sup> For the two major providers, reported average revenue per user ("ARPU")<sup>267</sup> grew and customer turnover remained relatively constant or increased slightly. For DIRECTV, ARPU was \$70.73 for the six months ended June 2006, compared with \$66.91 at mid-year 2005.<sup>268</sup> For EchoStar, ARPU rose to \$62.71 in mid-year 2006 from \$58.46 in mid-year 2005.<sup>269</sup> EchoStar's turnover rate rose slightly from 1.69 percent in mid-year 2005 to 1.70 percent in mid-year 2006,<sup>270</sup> while DIRECTV's fell from 1.69 percent in mid-year 2005 to 1.59 percent in mid-year 2006.<sup>271</sup>

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<sup>260</sup> See *2005 Report*, 20 FCC Rcd at 2792 ¶ 54.

<sup>261</sup> See Appendix B, Table B-1.

<sup>262</sup> See Appendix B, Table B-3.

<sup>263</sup> The DIRECTV Group, Inc., *SEC Quarterly Report Form 10-Q Pursuant to Section 13 or 15(d) of the Securities Act of 1934 for the Quarterly Period Ended June 30, 2006* ("DIRECTV 10-Q"), at 19.

<sup>264</sup> EchoStar Communications Corp., *SEC Quarterly Report Form 10-Q Pursuant to Section 13 or 15(d) of the Securities Act of 1934 for the Quarterly Period Ended June 30, 2006* ("EchoStar 10-Q"), at 28. See also Appendix B, Table B-3.

<sup>265</sup> Sky Angel's subscribership was provided in an e-mail from Nancy Christopher, Vice President, Corporate Communications, Dominion Video Satellite, Inc., March 26, 2007.

<sup>266</sup> *DIRECTV 4Q Reaction*, SKYREPORT, Feb. 12, 2007 at 1 and SKYREPORT, *Subscription Media Flourishes, Bright Future*, Jan. 11, 2007, at 1. Last year, we reported that analysts attributed DBS growth to increased availability of local broadcast stations; service enhancements, including multiple room viewing solutions and HDTV; and the ability to co-market DSL service. *2005 Report*, 20 FCC Rcd at 2792 ¶ 72.

<sup>267</sup> ARPU is the revenue generated by an individual customer per month and is calculated by dividing revenues by the average number of subscribers during the period.

<sup>268</sup> DIRECTV 10-Q, at 19.

<sup>269</sup> EchoStar 10-Q, at 28.

<sup>270</sup> EchoStar 10-Q, at 28.

<sup>271</sup> DIRECTV 10-Q, at 19.

78. **Programming Services and Pricing.** DIRECTV and EchoStar offer numerous programming packages. DIRECTV offers five English language and six Spanish language packages.<sup>272</sup> EchoStar offers seven English language and four Spanish language program packages.<sup>273</sup> EchoStar and DIRECTV also offer packages to subscribers in Hawaii and Alaska; DIRECTV and EchoStar offer local stations as well, but Sky Angel service is not available in Hawaii or Alaska because its service comes from a satellite located at 61.5° that cannot reach those states.<sup>274</sup> Both major DBS providers announced price increases to take effect in 2007. In December 2006, EchoStar raised prices averaging 4 percent across all programming packages, a smaller price increase than the 6.5 percent average increase reported by EchoStar last year, with HDTV rates shifting to a flat \$20 per month added to programming packages.<sup>275</sup> In January 2006, DIRECTV announced price increases that averaged 7 percent across all tiers, raising prices for new lower-tier subscribers nearly 10 percent, but holding prices steady for existing higher-tier subscribers.<sup>276</sup>

79. DBS providers continued to expand their HD offerings in 2006. DIRECTV's Plus HD Package includes ESPN HD, ESPN2 HD, TNT HD, Discovery HD Theater, Universal HD, HD Net, HD Net Movies for \$9.99 per month.<sup>277</sup> DIRECTV delivers the national HD broadcast feed of ABC, CBS, Fox, NBC, CW and MyNetworkTV in select markets.<sup>278</sup> As of November 2006, DIRECTV had launched

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<sup>272</sup> DIRECTV's family package, which includes more than 40 channels of nonbroadcast programming and local broadcast stations and two XM Radio audio channels, costs \$29.99 per month; Choice Extra, which includes more than 185 channels of nonbroadcast programming and local broadcast stations and 68 XM Radio audio channels, costs \$54.99 per month; Plus, which augments the Choice Extra services with a digital video recorder service, costs \$59.00 per month; Plus HD, which adds 8 network and local high-definition channels to Choice Extra services, costs \$69.99 per month; and Premier, which includes more than 250 channels of nonbroadcast and premier programming and local broadcast stations and 68 XM Radio audio channels, plus DVR services and HD channels, costs \$99.99 per month. Where local channels are not available, DIRECTV deducts \$3.00 per month from the price of the package. Programming information available at <http://www.directv.com/DTVAPP/global/secondaryIndex.jsp?assetId=1300025> (visited Feb. 8, 2007).

<sup>273</sup> EchoStar's Dish Family, which includes more than 40 channels of nonbroadcast programming, costs \$19.99 per month; Americas's Top 100, which includes more than 100 channels of nonbroadcast programming, costs \$29.99 per month; America's Top 100 Plus, which adds local sports programming where available, costs \$39.99 per month; America's Top 200, which includes an additional 100 nonbroadcast programs to the America's Top 100 and more than 30 audio channels, costs \$42.99 per month; America's Top 250, which adds NBA TV and additional audio channels, costs \$52.99 per month; and America's Everything Pack, which adds 31 premium channels, costs \$89.99 per month. Programming information available at [http://www.dishnetwork.com/content/whats\\_on\\_dish/programming\\_packages/index.shtml](http://www.dishnetwork.com/content/whats_on_dish/programming_packages/index.shtml) (visited Feb. 8, 2009).

<sup>274</sup> DBS providers are required, if technically feasible, to serve the entire United States, including Alaska and Hawaii. 47 CFR § 25.148(c). See Section III.C.3., *infra*, at ¶ 257.

<sup>275</sup> *Small Price Increase at DISH, Big Jump in HDTV Costs*, SKYREPORT, Jan. 3, 2007.

<sup>276</sup> *DIRECTV Unveils 2007 Price Increases*, SKYREPORT, Jan. 19, 2007. See also Linda Moss, *DIRECTV Sets New Prices, Packages*, MULTICHANNEL NEWS, Jan. 22, 2007.

<sup>277</sup> See The DIRECTV Group, Inc., *HD Programming*, at <http://www.directv.com/DTVAPP/packProg/channelChart2.jsp?assetId=1100084> (visited Feb. 12, 2007).

<sup>278</sup> See The DIRECTV Group, Inc., *Local Channels in HD*, at <http://www.directv.com/DTVAPP/packProg/channelChart2.jsp?assetId=1100086> (visited Feb. 12, 2007).

HD local broadcast stations in 49 select markets.<sup>279</sup> DIRECTV announced plans to expand to 100 non-broadcast HD channels by the end of 2007, capitalizing on expanded satellite capacity from the expected launch of two new satellites in 2007.<sup>280</sup> The new offerings would deliver more than 1,500 local HD broadcast and 150 national non-broadcast HD channels.

80. In last year's report, we noted that Cablevision had sold its Rainbow 1 DBS satellite to EchoStar.<sup>281</sup> As a result of this transaction, EchoStar began offering VOOM's HD programming services, carrying 15 channels, in January 2006.<sup>282</sup> EchoStar currently offers 31 HD channels, as part of its DishHD programming package, which costs \$20 and is offered as an add-on to the base programming package.<sup>283</sup> EchoStar also offers an HD receiver and an HD DVR,<sup>284</sup> and has packages offering a flat panel LCD television with its HD set-top boxes to offer an all-in-one equipment and service package.<sup>285</sup> EchoStar offers HD local channels in 30 markets.<sup>286</sup>

81. **Equipment Pricing.** Subscribers to DBS service need a satellite dish and a set-top box. EchoStar and DIRECTV continue to rely on discounted set-top box equipment, free satellite dishes, and free installation to attract new customers.<sup>287</sup> With respect to equipment, DIRECTV and EchoStar offer a

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<sup>279</sup> See *DIRECTV Lights Up HD Locals in Detroit*, Satellite Business News FAXUPDATE, Oct. 21, 2005; The DIRECTV Group, *DIRECTV Delivers High-Definition Local Channels to Boston, Dallas, Houston, Tampa, and Washington, D.C.* (press release), Dec. 9, 2005; The DIRECTV Group, *DIRECTV Transmits High-Definition Local Channels in New MPEG-4 Transmission Standard to Los Angeles* (press release), Dec. 28, 2005; The DIRECTV Group, *DIRECTV Brings High-Definition Local Channels to New York Today* (press release), Dec. 28, 2005. DIRECTV is carrying the HD local broadcast feed of the ABC, NBC, CBS, and Fox affiliates.

<sup>280</sup> DIRECTV, Inc., *DIRECTV to Offer 100 National HD Channels in 2007* (press release), Jan. 8, 2007.

<sup>281</sup> *2005 Report*, 21 FCC Rcd at 2539 ¶ 71.

<sup>282</sup> EchoStar Communications Corp., *DISH Network Launches Nation's Largest HD Package - DishHD, Featuring Local HD Channels and New VOOM HD Channels* (press release), Jan. 6, 2006.

<sup>283</sup> EchoStar Communications Corp., *Dish Network Expands High Definition Programming Lineup to 31 Channels* (press release), Feb. 1, 2007. New DISH Network customers can also subscribe to the DishDVR Advantage package, an all-inclusive TV package including over 200 channels, local channels where available, a DVR serving two TVs and free installation for \$49.99 per month. *Id.*

<sup>284</sup> EchoStar's DishNetwork MPEG-4 ViP211 receiver supports standard or high definition programming on one television, and retails for an estimated \$240.00, The DishNetwork MPEG-4 ViP622 DVR dual-output tuner retails for around \$700.00 and supports up to two televisions, one HDTV and one standard. It can record up to 200 hours of standard-definition programming, up to 30 hours of high-definition programming, or a combination of the two.

<sup>285</sup> Craig Moffett, Tom Wolzien, *View from the Back Office*, Bernstein Research, Jan. 7, 2005. In addition, DIRECTV sells a 30-inch LCD TV for \$1,600 and 40-inch TV for \$4,000, including delivery, installation, satellite dish, and the DISH 811 HD set-top box.

<sup>286</sup> EchoStar Communications Corp., *DISH Network Offers Free High Definition DVR* (press release), Jan. 8, 2007. EchoStar Comments at 21.

<sup>287</sup> The cost of discounted equipment is reflected in DIRECTV's and EchoStar's subscriber acquisition cost ("SAC"), which describes the cost of acquiring a new subscriber. For example, as of June 30, 2006, EchoStar's SAC was \$683 per subscriber, down 1.3 percent from \$692 in mid-year 2005. See EchoStar 10-Q. As of June 30, (continued....)

wide range of set-top box receivers. In March 2006, DIRECTV began a lease program for standard and HD set-top and DVR receivers available to new and existing customers.<sup>288</sup>

82. EchoStar and DIRECTV also continue to develop their DVR services.<sup>289</sup> In December 2005, DIRECTV began offering a new DVR which allows customers to automatically record an entire season of the viewer's favorite shows and tracks changes to the programming schedules. The DVR also allows viewers to record all pay-per-view movies and only pay for those shows actually viewed. Moreover, the DVR allows viewers to mark their favorite scenes in a recorded program and jump back to them at any time while viewing the program.<sup>290</sup> EchoStar continued to offer new DVR options for DISH Network customers, including offering customers the opportunity to bundle programming with a DVR option included for a flat rate.<sup>291</sup> In February 2007, EchoStar began offering new DISH Network customers an HD DVR option.<sup>292</sup>

83. Both EchoStar and DIRECTV offered interactive-capable receivers, permitting them to offer their customers a variety of interactive applications. For example, DIRECTV previewed its interactive applications with an interactive advertising campaign, followed by interactive content for football and baseball viewers, and plans for a subscription-based Game Lounge gaming platform available for a monthly subscription of \$5.95 or for \$1.95 on a pay-per-day basis.<sup>293</sup> EchoStar offers 40 different virtual and enhanced channels and reports interactive television set-top boxes in 12 million households. The company plans to expand its interactive offerings to include auto racing and cricket coverage.<sup>294</sup>

84. **Availability of Local Broadcast Stations.** In approximately 175 of 210 television markets (*i.e.*, designated market areas, or DMAs), which represent 97 percent of all U.S. television households, at least one DBS provider offers the signals of local broadcast stations (“local-into-local”

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2006, DIRECTV's SAC was \$422.10 per subscriber, down 34 percent from \$646 in mid-year 2005. *See* DIRECTV 10-Q.

<sup>288</sup> Linda Moss, *DIRECTV Opts For a Leasing Model*, MULTICHANNEL NEWS, Jan. 23, 2006.

<sup>289</sup> *See 2005 Report*, 21 FCC Rcd at 2547-8 ¶ 86.

<sup>290</sup> DIRECTV, Inc., *DIRECTV's Most Advanced DVR Now Available at Retailers Nationwide; New DIRECTV Plus DVR Offers Innovative Features to Help Simplify the Lives of Consumers* (press release), Dec. 1, 2005.

<sup>291</sup> EchoStar Communications Corp., *DISH Network(TM) Launches DishDVR Advantage Package* (press release), Jan. 8, 2007. On May 2001, the U.S. Patent and Trademark Office issued TiVo a patent on the time warp technology for DVRs that allows viewers to pause, rewind and fast-forward live television shows. On April 13 2006 a jury in United States District Court in the Eastern District of Texas concluded that EchoStar violated TiVo's DVR technology patent and, therefore, awarded TiVo \$74 million in damages. Subsequently, the United States Court of Appeals granted EchoStar's request to lift TiVo's injunction effectively preventing EchoStar customers' DVR usage. The case remains pending.

<sup>292</sup> EchoStar Communications Corp., *DISH Network Offers Free High Definition DVR* (press release), Jan. 8, 2007.

<sup>293</sup> DIRECTV, Inc., *DIRECTV and Dodge Launch 2007 Caliber Interactive Advertising Campaign; Four New Interactive Ads Make it Easy for DIRECTV Customers to Experience the All-New Dodge Caliber Without Having to Leave Their Couch* (press release), May 5, 2006; *YES Interactive only on DIRECTV" Launches as First-Ever Interactive Content for Major League Baseball Telecasts* (press release), July 25, 2006; and *DIRECTV Redefines Casual Gaming with Launch of Game Lounge and Exclusive Mattel Agreement* (press release), Feb. 13, 2007.

<sup>294</sup> EchoStar Communications Corp., *DISH Network(TM) Expands Interactive TV Offerings* (press release), Jan. 8, 2007.

service).<sup>295</sup> EchoStar offers local-into-local service in more than 174 cities, and charges \$5.99 per month for inclusion of local broadcast stations in each service plan.<sup>296</sup> DIRECTV offers local broadcast stations in 143 markets across the country and provides local programming in HD in 42 cities.<sup>297</sup>

85. **Regulatory Issues.** DBS systems in the United States currently operate in the 12.2-12.7 GHz band from satellites in orbital locations that are spaced nine degrees apart. The Commission recently initiated two rulemaking proceedings in which the Commission proposes to make additional spectrum available for a new generation of broadband, video, audio, data, multimedia, high definition, and other services.

86. First, by international agreement, a new allocation of spectrum for satellite services in the United States in the 17/24 GHz bands will become effective in April 2007. In June 2006, the Commission initiated a rulemaking proceeding to consider service rules for this new spectrum, including the appropriate method for processing applications, access to the U.S. market from non-U.S. licensed satellites, orbital spacing, and other technical requirements.<sup>298</sup>

87. The Commission also began a rulemaking proceeding seeking comment on revisions to the licensing procedures and technical rules governing DBS service, including “tweener” applications.<sup>299</sup> “Tweener” locations refer to orbital positions that would be located between locations originally designated in the ITU Region 2 Band Broadcast Satellite Service Plan.<sup>300</sup> Under this plan, the United

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<sup>295</sup> See <https://customersupport.dishnetwork.com/netqualweb/localmarkets.pdf>; <http://directv.com/DTV/global/contentPage.jsp?assetId=1000013>; <http://nielsenmedia.com/nc/portal/site/Public/>.

<sup>296</sup> EchoStar Comments at 21. The price for standard definition local channels is \$5.99 in markets in which all four of the major networks are offered; \$4.99 where three of the four are offered; and, \$3.99 where only two of the four are offered. See also EchoStar, <https://customersupport.dishnetwork.com/customernetqual/prepAddress.do> (visited Feb. 8, 2007).

<sup>297</sup> The DIRECTV Group, Inc., Local Channel Markets, at <http://directv.com/DTVAPP/global/contentPage.jsp?assetID=1000013>. Where local channels are not available, DIRECTV deducts \$3.00 per month from the price of the package. See DIRECTV <http://www.directv.com/DTVAPP/packProg/localChannels.jsp?assetId=900018> and <http://phx.corporate-ir.net/phoenix.zhtml?c=127160&p=irol-newsArticle&ID=910053&highlight=> (visited Feb. 8, 2007).

<sup>298</sup> *Establishment of Policies and Service Rules for the Broadcasting Satellite Service at the 17.3-17.7 GHz Frequency Band and at the 17.7-17.8 GHz Frequency Band Internationally, and at the 24.75-25.25 GHz Frequency Band for Fixed Satellite Services Providing Feeder Links to the Broadcasting-Satellite Service and for the Broadcasting Satellite Service Operating Bidirectionally in the 17.3-17.7 GHz Frequency Band*, 21 FCC Rcd 7426 (2006) (“*Broadcasting Satellite Service NPRM*”).

<sup>299</sup> See *Amendment of the Commission’s Policies and Rules for Processing Applications in the Direct Broadcast Satellite Service*, 21 FCC Rcd 9443 (2006).

<sup>300</sup> In the early 1980s, ITU members reached agreement on assigning BSS spectrum at specific orbit locations among the ITU’s Region 2 member countries. (ITU Region 2 includes North, Central, and South America, and Greenland). See Article 5, Section 1 of the ITU Radio Regulations. The eight U.S. orbital positions, proceeding from east to west (all West Longitude), are 61.5°, 101°, 119°, 148°, 157°, 166°, and 175°. Each of the eight orbital locations is capable of providing 32 analog channels, each using 24 megahertz of bandwidth. The nine-degree orbital spacing in the DBS service enables subscribers to use earth station antennas that are smaller than those generally employed for C and Ku-band services.

States was assigned eight DBS orbital locations, spaced at intervals of at least nine degrees. Tweener locations are those other than those in the original Region 2 Plan and also are known as “reduced spacing or non-nine-degree-spaced” locations. Tweener locations are selected by applicants to provide coverage using the smaller-sized satellite dishes that consumers have come to expect, while attempting to minimize interference from adjacent in-orbit satellites.<sup>301</sup> If adopted, the revised rules would permit satellite carriers to launch additional satellites to increase their capacity, which could allow them to increase their video offerings.

88. At the end of 2004, the Satellite Home Viewer Extension and Reauthorization Act of 2004 (“SHVERA”) was enacted. SHVERA addresses a variety of issues related to the carriage of broadcast television signals on DBS systems.<sup>302</sup> Among its provisions, SHVERA extended satellite carriers’ compulsory copyright license to carry distant signals through the end of 2009.<sup>303</sup> Generally, a DBS operator must terminate distant signal service to any subscriber that elected to receive local-into-local service and is precluded from providing distant network signals to new subscribers in markets where local-into-local service is available.<sup>304</sup> The statute also permits satellite carriers to deliver the digital signal of a distant network station to consumers in unserved digital households or to subscribers who have a waiver from the local television station affiliated with the same network.

89. In 2006, a district court in Florida issued a nationwide permanent injunction barring EchoStar from providing any distant network programming pursuant to the statutory copyright license.<sup>305</sup> After a failed attempt to reach a settlement with all of the networks involved, EchoStar began shutting off distant network subscribers in compliance with the District Court’s order to do so by December 1, 2006. In the same timeframe, National Programming Service (“NPS”) began offering its All America Direct distant network service to EchoStar subscribers using satellite transponder capacity leased from Echo Star. The District Court rejected a broadcaster challenge to the NPS offering; that order is on appeal as of

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<sup>301</sup> In November 2006, the International Bureau of the Commission issued two conditional authorizations for Tweener locations. *EchoStar Satellite L.L.C., Application to Construct, Launch, and Operate a Direct Broadcast Satellite at the 86.5° W.L. Orbital Location, Order and Authorization, DA 06-2440* (rel. Nov. 29, 2006); *Spectrum Five, L.L.C., Petition for Declaratory Ruling to Serve the U.S. Market Using Broadcast Satellite Service Spectrum from the 114.5° W.L. Orbital Location, Order and Authorization, DA 06-2439* (rel. Nov. 29, 2006). In one decision, Spectrum 5 was authorized to access the United States market from a foreign-licensed Tweener orbital location. In the other decision, EchoStar was licensed to provide service from a Tweener location. The Bureau processed the Tweener applications on an ad hoc basis. The authorizations were conditioned upon operator-to-operator coordination, compliance with ITU technical requirements, and compliance with the outcome of the DBS proceeding.

<sup>302</sup> See generally, *2005 Report*, 21 FCC Rcd at 2542-3 ¶ 77.

<sup>303</sup> SHVERA can be found at Title IX of the Consolidated Appropriations Act, 2005 (H.R. 4818), codified at 47 U.S.C. §§ 338, 339 and 340.

<sup>304</sup> Distant signals are broadcast stations that originate outside the television market where a consumer lives. That is, the consumer resides in a different Nielsen DMA than the one where the broadcast station’s community of license is located.

<sup>305</sup> See *CBS v. EchoStar*, 472 F. Supp. 2d 1367 (S.D. Fla. 2006).

this writing.<sup>306</sup> On January 8, 2007, the U.S. Supreme Court declined to hear EchoStar's appeal of the December 1, 2006, shut-down order.<sup>307</sup>

90. In April 2006, the Commission issued a Notice of Proposed Rulemaking to begin the process of implementing recommendations for DTV measurement procedures submitted to Congress.<sup>308</sup> In the Notice, we proposed to amend the rules to include procedures for measuring field strength of digital television signals. Specifically, the Commission sought comment on measurement procedures; on measurement rules with respect to weather conditions, data recording, and tester availability; and on what type of antenna should be used to take measurements. Finally, in May 2006 and July 2007, pursuant to SHVERA, the Commission granted waivers to local network stations of the requirement to submit to a digital signal strength test.<sup>309</sup>

91. **Satellite Fleet Developments and Video Capacity.** Both DIRECTV and EchoStar launched new satellites in 2006. In February, EchoStar's EchoStar X satellite was launched at the 110° W.L. orbital location and began commercial operation during the second quarter of the year.<sup>310</sup> The satellite allows EchoStar to increase the number of markets where local channels are offered, including high definition local channels, and it will eliminate the need for some of its subscribers to use multiple dishes to receive programming.<sup>311</sup> In October 2006, the DIRECTV 9S satellite was launched at the 101° W.L. orbital location and began commercial operation. Additionally, DIRECTV plans to launch two additional satellites, DIRECTV 10 at 99° W.L. and DIRECTV 11 at 103° W.L., in 2007 to increase spot-beam capability for local and national HD channels, as well as capacity for new interactive and enhanced services and standard-definition programming. A third satellite under construction, DIRECTV 12, will serve as a ground spare.<sup>312</sup> DIRECTV states that the combined capacity of the four satellites will enable DIRECTV to retransmit more than 150 national channels in high definition and the digital signals of approximately 1,500 local broadcast stations.<sup>313</sup> However, existing DIRECTV subscribers will need to

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<sup>306</sup> See *NPS Adds Distant Station Subs*, SATELLITE BUSINESS NEWS FAX UPDATE, Jan. 1, 2007, at 1.

<sup>307</sup> See *CBS v. EchoStar*, 450 F. 3d 505 (11<sup>th</sup> Cir. 2006), *cert denied* 1272 S. Ct. 945 (2007).

<sup>308</sup> *Measurement Standards for Digital Television Signals Pursuant to the Satellite Home Viewer Extension and Reauthorization Act*, 21 FCC Rcd 4735 (2006).

<sup>309</sup> *Waiver of Digital Testing Pursuant to the Satellite Home Viewer Extension and Reauthorization Act of 2004*, 21 FCC Rcd 4813 (2006). The Commission renewed 15 of those waivers in October 2006. *Waiver of Digital Testing Pursuant to the Satellite Home Viewer Extension and Reauthorization Act of 2004*, 22 FCC Rcd 12918 (MB 2007).

<sup>310</sup> Boeing Sea Launch, *Sea Launch Delivers EchoStar X Satellite to Orbit* (press release), Feb. 15, 2006, available at [http://www.boeing.com/news/releases/2006/q1/060215c\\_nr.html](http://www.boeing.com/news/releases/2006/q1/060215c_nr.html) (visited Feb. 9, 2007).

<sup>311</sup> EchoStar Communications Corp., *Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Quarterly Period Ended March 30, 2006*, at 13 and 32.

<sup>312</sup> The DIRECTV Holdings, LLC, *Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Quarterly Period Ended November 30, 2006*, at 17.

<sup>313</sup> DIRECTV Group, Inc., *DIRECTV 9S Satellite Launches Successfully; Expands DIRECTV Fleet to Nine Spacecraft* (press release), Oct. 13, 2006, available at <http://phx.corporate-ir.net/phoenix.zhtml?c=127160&p=irol-newsArticle&ID=916210&highlight=> (visited Feb. 9, 2007).

upgrade to a new satellite dish and HD compatible set-top box in order to access the programming transmitted by the new satellites.<sup>314</sup>

92. Additionally, both EchoStar and DIRECTV continued to utilize orbital locations assigned to other countries under international agreements in order to deliver DBS services to U.S. subscribers. These arrangements involve agreements to transfer U.S. licensed satellites to foreign entities that are then licensed by the country to which the orbital location is assigned. Those entities then make available capacity for U.S. service.<sup>315</sup> In addition, on April 7, 2006, the Commission authorized SES Americom, acting pursuant to a contract with EchoStar, to transfer control temporarily of the Ku-band frequencies on its AMC-16 spacecraft to Telesat Canada, which would operate those frequencies at the 118.75° W.L. orbital location, making capacity available for EchoStar's use in the United States.<sup>316</sup> The Commission also authorized EchoStar to receive signals from the Ku-band portion of the satellite in the United States in order to provide enhanced DTH service.<sup>317</sup> On April 18, 2006, the Commission authorized EchoStar to transfer control of its EchoStar 4 satellite to QuetzSat, S. de R.L. de C.V., a Mexican company, which would operate the satellite at the 77° W.L. orbital location.<sup>318</sup> The Commission also authorized EchoStar to receive signals in the United States from the satellite, using up to 1 million dishes.

## 2. Home Satellite or Large Dish Service

93. The home satellite dish ("HSD"), or large dish, segment of the satellite industry is the original satellite-to-home service offered to consumers. It involves the home reception of analog signals transmitted by satellites operating in the C- and Ku-band frequencies, generally referred to here as

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<sup>314</sup> The DIRECTV Group, Inc., *DIRECTV to Deliver Local HD Programming in 67 Markets by Year End* (press release), Oct. 10, 2006. According to DIRECTV, to receive the HD programming, subscribers must purchase a HD set-top box or HD Receiver/DVR compliant with the MPEG-4 standard, for which DIRECTV offers a \$100 rebate. Existing subscribers must also purchase a new, slightly larger dish antenna, which is offered with an initial upgraded HD set-top box for \$99, and \$99 per additional receiver.

<sup>315</sup> *DIRECTV Enterprises LLC, Order and Authorization*, 20 FCC Rcd 11772 (IB 2005) (service to U.S. DTH subscribers from 72.5° W.L. orbital location assigned to Canada in ITU "planned" band, using DIRECTV 1); *EchoStar Satellite LLC, Order and Authorization*, 20 FCC Rcd 11755 (IB 2005) (service to U.S. DTH subscribers from 129° W.L. orbital location assigned to Canada in ITU "planned" band, using EchoStar 5); *DIRECTV Enterprises LLC, Order and Authorization*, 19 FCC Rcd 15529 (IB 2004) (service to U.S. DTH subscribers from 72.5° W.L. orbital location assigned to Canada in ITU "planned" band, using DIRECTV 5).

<sup>316</sup> *SES Americom Inc., Order and Authorization*, 21 FCC Rcd 3430 (IB 2006). The Ku-Band frequencies at the 118.75° W.L. orbital location are effectively precluded from use by U.S. licensed satellites, and assigned to Canada, under the 1988 Trilateral Arrangement. *See Trilateral Arrangement Regarding Use of the Geostationary Orbit Reached by Canada, Mexico, and the United States*, Public Notice (Sept. 2, 1988).

<sup>317</sup> Direct to Home ("DTH") is a broad industry term that can encompass all satellite-based direct to consumer services, including DBS, Digital Audio Radio Satellite Service ("DARS"), and Broadcast Satellite Services ("BSS"). The latter is the international term used for a radio communication service in which broadcast signals transmitted or retransmitted by space stations are intended for direct reception by the general public. *See, e.g.*, 47 C.F.R. § 2.1. Typically, the Commission uses DTH to refer to direct-to-consumer video services provided in frequency bands allocated for Fixed Satellite Services ("FSS"), rather than DBS-allocated bands of 12.2-12.7 GHz. *See* 47 C.F.R. §§ 25.201, 25.202(a)(7).

<sup>318</sup> *EchoStar Satellite LLC, Order and Authorization*, 21 FCC Rcd 4077 (IB 2006).

C-band. Programming available in the C-band consists primarily of nonbroadcast program channels transmitted to cable operators that they, in turn, distribute to their subscribers through cable systems. Cable operators pull down the transmissions via C-band receiving dishes at the cable operator's central technical facility or "headend." C-band channels may be transmitted either as clear channels, available for free reception, or as scrambled signals.<sup>319</sup> In order 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 for authority to receive the channels.<sup>320</sup>

94. The number of HSD households continues to decline. As of June 2006, there were 111,478 HSD subscribers, a 45.9 percent drop from the 206,358 we reported last year.<sup>321</sup> This trend continues; in January 2007, there were 68,781 households authorized to receive HSD service, down 38.3 percent in the six months since June 2006.<sup>322</sup>

95. C-band programmers continue to market DBS services to their customers, whether as an alternative or an addition to their free-to-air or subscription C-band HSD services. For example, C-band program packagers, National Programming Service, LLC ("NPS") and Superstar/Netlink have partnered with EchoStar to offer DBS services to their C-band customers.<sup>323</sup> Additionally, prices have fallen for technology which allows C-band customers to receive digital-only satellite channels in addition to available analog programming.<sup>324</sup> Motorola's digital home satellite dish technology, 4DTV, currently sells for approximately \$479, compared to \$550 last year.<sup>325</sup> The 4DTV box allows customers to receive

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<sup>319</sup> In March 2005, the Commission issued a Notice of Proposed Rulemaking concerning technical changes to its earth station rules, including a proposal to prohibit analog video transmission in the C-band, with a one-year transition period. *2000 Biennial Regulatory Review – Streamlining and other Revisions of Part 25 of the Commission's Rules Governing the Licensing of Spectrum Usage by, Satellite Network Earth Stations and Space Stations*, 20 FCC Rcd 5593, 5625 (2005) ¶ 88. This proceeding is pending.

<sup>320</sup> 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, typically ranging from 4 to 8 feet in diameter.

<sup>321</sup> *2005 Report*, 20 FCC Rcd at 2792 ¶ 80.

<sup>322</sup> *C-BAND*, SKYREPORT, Feb. 12, 19, 2006, at 4 and *C-Band Numbers Keep Dwindling*, Satellite Business News FAXUpdate, July 7, 2006. These numbers are based on a report from Motorola's Access Control Center, which oversees authorizations and de-authorizations of satellite receivers using Motorola's proprietary conditional access systems.

<sup>323</sup> See Superstar Netlink and Tuner Vision at [http://www.superstar.com/dishnetwork\\_index.asp](http://www.superstar.com/dishnetwork_index.asp) and National Programming Service, LLC., at <http://www.callnps.com/smalldish.htm> (visited Feb. 9, 2007).

<sup>324</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 Feb. 9, 2006). 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>325</sup> *2005 Report*, 20 FCC Rcd at 2792 ¶ 81. The price of a receiver is often significantly discounted with the purchase of a programming package. For example, C-band programming provider Skyvision offers the Motorola (continued....)

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.

96. Additionally, GlobeCast WorldTV, a subsidiary of France Telecom, delivers a DTH subscription package of foreign channels directly to U.S. customers on the FSS Intelsat 5 satellite.<sup>326</sup> GlobeCast offers two types of channels: free-to-air (“FTA”) and encrypted. The FTA channels are unscrambled, and thus can be received with any DVB-compliant MPEG-2 receiver package. Encrypted channels are scrambled, and require a monthly subscription in addition to the receiver package purchase price.<sup>327</sup>

### 3. Satellite-Based Advanced Services

97. **Broadband Satellite Services.** Satellite broadband connectivity has become available to nearly any U.S. consumer with line-of-sight view of the satellite, providing a valuable option for rural residents and businesses.<sup>328</sup> Services may be offered either directly by satellite companies or by other telecommunications providers leasing capacity on existing satellites, and may be integrated with other services such as direct-to-user video via a single dish.<sup>329</sup> Satellite broadband providers served 495,365 subscribers in June 2006, up 31 percent from the 376,837 subscribers reported in June 2005.<sup>330</sup>

98. EchoStar and DIRECTV continue to market broadband and DSL services through relationships with local exchange carriers, as well as satellite and other broadband providers. DIRECTV maintains relationships with LECs Verizon, BellSouth<sup>331</sup> and Qwest, as well as with Earthlink in order to offer high-speed broadband to standard and HD programming customers for an additional \$10.00 per month.<sup>332</sup> EchoStar offers a point-of-sale platform called GetConnected, Inc. that helps customers select

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4DTV DSR922 receiver for \$439.00 with the purchase of a programming package. See Skyvision, Inc., at <http://skyvision.com/store/dtv.html> (visited Feb. 9, 2007).

<sup>326</sup> *About GlobeCast WorldTV*, available at <http://www.globecastwtv.com/> (visited Feb. 2, 2007). In the United States, satellite video services delivered directly to subscriber homes are provided in two separate sets of frequency bands. DBS is a radiocommunications service in which signals transmitted or retransmitted by space station in the 12.2-12.7 GHz frequency band are intended for direct reception by the general public. See 47 C.F.R. §§ 25.201 and 25.202(a)(7). DTH satellite service is provided in bands internationally allocated to the FSS using FSS satellites. See 47 C.F.R. Part 25.

<sup>327</sup> See [http://www.globecast.com/\\_2004/\\_0\\_library/brochures/GlobeCast\\_wtv.pdf](http://www.globecast.com/_2004/_0_library/brochures/GlobeCast_wtv.pdf). Customers can also receive GlobeCast's WorldTV channels in Alaska, Hawaii, Puerto Rico or the USVI. The company transmits its programming via Galaxy 25, their satellite which covers the continental United States.

<sup>328</sup> For further discussion of broadband services via satellite, see *Annual Report and Analysis of Competitive Market Conditions with Respect to Domestic and International Satellite Communications Services*, 22 FCC Rcd 5954 (2007).

<sup>329</sup> For example, SES Americom's AMC-15 satellite is dedicated to its Americom2Home service. Its Ka-band payload optimized to provide these combined services via a single dish.

<sup>330</sup> *High-Speed Services for Internet Access: 2006 Status Report*, note 194 *supra* at 5.

<sup>331</sup> For purposes of this *Report*, BellSouth and AT&T are treated as separate companies. See note 28 *supra*.

<sup>332</sup> The DIRECTV Group, Inc., *Internet Access*, at <http://www.directv.com/DTVAPP/global/contentPage.jsp?assetId=900028> (visited Feb. 14, 2007).

DSL and broadband services from a variety of providers, including AT&T, Verizon, BellSouth, Qwest, Embarq, WildBlue and Earthlink.<sup>333</sup>

99. **Mobile Video Services.** Both major DBS providers expanded their mobile or transportable video services in 2006. Both continue to provide on-board video programming to commercial airlines for in-flight TV services.<sup>334</sup> In 2006, DIRECTV initiated a TOTAL CHOICE Mobile video service, providing 185 channels of news, weather, traffic, sports and other local entertainment programming to car video screens for \$49.99 per month; users must purchase a specialized tracking satellite system with a Global Positioning System.<sup>335</sup> DIRECTV also announced a portable satellite and TV system, DIRECTV Sat-Go, offering a brief-case-sized 17" LCD monitor with an integrated receiver, antenna and battery.<sup>336</sup> EchoStar offers three versions of PocketDish, a hand-held video, music, photo and gaming device which can store up to 20 hours of programming from select DVR receivers.<sup>337</sup> EchoStar also announced a TV on the Go service, which will use a roof-rack-mounted mobile in-car satellite antenna for television viewing.<sup>338</sup>

### C. Broadband Service Providers

100. For purposes of this *Report*, we define BSPs as newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.<sup>339</sup> Most BSPs are overbuilders competing directly with existing cable operators.<sup>340</sup> As we previously reported, BSPs face considerable challenge, which, the discussion below indicates, continues. BSP competition to

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<sup>333</sup> EchoStar Communications Corp., *DISH Network(TM) Offers Consumers High-Speed Internet Options; Launch of GetConnected, Inc.'s Platform Allows Consumers to Shop for DISH Network Programming and DSL Service at the Same Time* (press release), Sept. 21, 2006 and EchoStar Communications Corp., *Internet Access*, at [https://compass.getconnected.com/v\\_internet/index.asp](https://compass.getconnected.com/v_internet/index.asp) (visited Feb. 14, 2007).

<sup>334</sup> See, e.g., World Airline Entertainment Association, *Airline Inflight Entertainment and Communications (IFE) Fact Sheet* ("IFE Fact Sheet"), available at <http://www.waea.org/Press/Latesttrends.pdf> and EchoStar Communications Corp., *Virgin America to Offer EchoStar's Dish Network at Every Seat on Every Flight* (press release), Jan. 12, 2007.

<sup>335</sup> DIRECTV, Inc., *DIRECTV Delivers Live Local Channels to Motorists on the Open Road for the First Time* (press release), Aug. 23, 2006, and *Satellite*, COMM. DAILY at 13 (Apr. 24, 2006) (story re KVH Industries' TracVision A5 mobile satellite system).

<sup>336</sup> DIRECTV, Inc., *DIRECTV Anywhere, Anytime, Anyplace* (press release), Jan. 8, 2007. The service costs \$4.99 per month and permits use of the same channels received at home.

<sup>337</sup> Joel Meyer, *EchoStar Turns Out PocketDish*, BROADCASTING & CABLE: The Business of Television, available at <http://www.broadcastingcable.com/article/CA6268924.html?display=Breaking+News&referral=SUPP>.

<sup>338</sup> EchoStar Communications Corp., *DISH Network's MobileDISH™ Provides Travelers with their Favorite TV Programs While on the Road*, (press release), Jan. 8, 2007.

<sup>339</sup> The term BSP is not intended to imply anything with respect to Commission's policy or proceedings that might involve broadband services. Usually, the services of a BSP can be purchased separately as well as in a bundle. See *2001 Report*, 17 FCC Rcd at 1296-97 ¶ 3; *2002 Report*, 17 FCC Rcd at 26948-52 ¶¶ 102-11. See also BSPA Comments at 2-4. BSPs include companies such as RCN, Champion Broadband, Knology, and SureWest Communications.

<sup>340</sup> *2004 Report*, 20 FCC Rcd at 2801 ¶ 70.

cable is limited to relatively few markets.

101. The Broadband Service Providers Association (“BSPA”) states that the BSPs, all of whom have entered the marketplace since the 1996 Act, have operations in nearly half the states, with nearly 10 million homes under active franchises.<sup>341</sup> Constructed systems currently pass 4.1 million homes, and the companies associated with BSPA have 1.2 million customers.<sup>342</sup> According to BSPA, BSPs have an average residential penetration rate of 29 percent.<sup>343</sup>

102. BSPs are seeking to compete by offering bundles of service which include telephony and high-speed Internet service, as well as various video offerings.<sup>344</sup> BSPA asserts that the BSP model has expanded the deployment of advanced services to the average consumer and, because BSPs provide a combination of video, voice, and Internet service, the companies need not attain the highest market share for any one service to maintain healthy operations.<sup>345</sup> In at least one case, a BSP also is entering into agreements to allow it to offer wireless service in order to offer even more extensive bundles of service.<sup>346</sup> Among existing BSP customers, BSPA reports that 89 percent subscribe to video, 51 percent subscribe to telephone service, and 63 percent subscribe to high-speed Internet access service. BSPA also reports that, on average, more than 32 percent of BSP customers buy all three core services (*i.e.*, video, voice, and data); some BSPs report that more than 50 percent of their customers take all three services.<sup>347</sup>

103. BSPA cites a U.S. Government Accountability Office (“GAO”) report that studied six market pairs for which one market of each pair was served by a BSP overbuilder, and the other was not.<sup>348</sup> The 2004 GAO Report found that communities with overbuild competition experienced lower rates (an average of 23 percent lower for basic cable) and higher quality service than did other communities.<sup>349</sup> Additionally, BSPA highlights a 2005 GAO study that examined overbuild video systems.<sup>350</sup> The report

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<sup>341</sup> BSPA Comments at 6.

<sup>342</sup> *Id.* at 6.

<sup>343</sup> *Id.* at 7.

<sup>344</sup> *Id.* at 7.

<sup>345</sup> *Id.* at 2-4. See also Comcast Comments at 43-45 (citing past financial difficulties of some BSPs, noting that they have rebounded and are expanding their service offerings to attract new customers).

<sup>346</sup> RCN Corp., *RCN Wireless Powers Up Cable/Internet/Telephone Customers in Boston* (press release), Sept. 27, 2006.

<sup>347</sup> BSPA Comments at 7.

<sup>348</sup> *Id.* at 4 citing GAO, *Telecommunications: Wire-Based Competition Benefited Consumers in Selected Markets*, GAO-04-241, Feb. 2004 (*GAO 2004 Report*). See also *2005 Report*, 21 FCC Rcd at 2550 ¶ 91.

<sup>349</sup> BSPA Comments at 4-5 citing GAO, *Telecommunications: Wire-Based Competition Benefited Consumers in Selected Markets*, GAO-04-241, Feb. 2004 (*GAO 2004 Report*). See also *Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984 as amended by the Cable Television Consumer Protection and Competition Act of 1992*, 22 FCC Rcd 5101(2007); *Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments*, 22 FCC Rcd 5935 (2007).

<sup>350</sup> BSPA Comments at 8. GAO, *Direct Broadcast Satellite Subscriberhip Has Grown Rapidly, but Varies Across Different Types of Markets*, GAO-05-257, Apr. 2005 (*GAO 2005 Report*). The *GAO 2005 Report* studies how DBS penetration varies across different types of markets (rural, suburban, and urban) and against different types of cable (continued....)

states that DBS penetration varies depending on the type of community (*i.e.*, urban, rural, or suburban) and the technical sophistication of the cable competitor and/or the presence of an overbuilder. BSPA maintains that DBS is not as direct a substitute for an incumbent cable operator as is another wireline MVPD such as a BSP, and that the variation of DBS penetration across communities indicates that the Commission should not accept cable industry arguments that cable is no longer dominant in the MVPD marketplace.<sup>351</sup> BSPA calls upon the Commission to monitor and analyze DBS competition as GAO did in the *GAO 2005 Report*, and to reject the notion that markets are not competitive until such time as competitors achieve a market share of 25-30 percent.<sup>352</sup> BSPA also reports that BSPs continue to face significant barriers to entry.<sup>353</sup>

#### **D. Broadcast Television Service**

##### **1. General Performance**

104. Broadcast networks and local stations supply video programming over the air to consumers. Consumers who do not subscribe to an MVPD service rely on the over-the-air transmission for reception of local broadcast television signals for video services. Many MVPD households receive broadcast television programming over the air on television receivers that they have chosen not to connect to the service. In addition, most U.S. consumers receive broadcast signals via their cable, DBS, or other MVPD service.

105. As we reported last year, broadcast television stations' audience shares have continued to fall. For the 2005-2006 television season, broadcast television stations accounted for a combined average 45 share of prime time viewing among all television households, compared to a 48 share in the previous season.<sup>354</sup> Broadcast stations achieved a 40 share of all-day (24-hour) viewing during the 2005-2006 season, down from a 41 share the previous season. In contrast, nonbroadcast channels' collective audience share continues to grow. In the 2005-2006 television season, nonbroadcast channels<sup>355</sup> accounted for a combined average 55 share of prime time viewing among all television households, up from the 53 share in the previous season.<sup>356</sup> Nonbroadcast channels accounted for a 60 share of all-day viewing, up from a 59 share in the previous season.<sup>357</sup>

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systems (not upgraded, partially upgraded, and fully upgraded). The report finds that DBS penetration is highest in rural areas and lowest in urban, and highest in areas served by a cable system that has not been upgraded and lowest in areas served by a cable system that has been fully upgraded.

<sup>351</sup> BSPA Comments at 8-11.

<sup>352</sup> *Id.* at 10.

<sup>353</sup> *Id.* at 11-16.

<sup>354</sup> Nielsen Media Research, *Broadcast Calendar (TV Season) Share of Audience Report, Prime Time and Total Day*, Dec. 2006. 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 the reported audience shares by recalculating them on a base (or denominator) equaling 100 percent, and adjusting the numerators accordingly.

<sup>355</sup> Includes basic (BST and CPST) networks, as well as premium and PPV networks, distributed by MVPDs.

<sup>356</sup> Nielsen Media Research, *Broadcast Calendar (TV Season) Share of Audience Report, Prime Time and Total Day*, Dec. 2006.

<sup>357</sup> *Id.*

106. Since the *2005 Report*, the number of commercial and noncommercial television stations rose from 1,747 as of June 30, 2005, to 1,753 as of June 30, 2006.<sup>358</sup> Total television broadcast advertising revenues declined 2.4 percent from \$47.2 billion in 2004 to \$46.1 billion in 2005.<sup>359</sup> Advertising revenue for the seven most widely distributed broadcast networks (ABC, CBS, Fox, NBC, PAX, UPN, and WB)<sup>360</sup> was estimated at \$25 billion in 2005, a slight increase over the \$24.9 billion earned in 2004.<sup>361</sup> Nonbroadcast programming networks fared somewhat better, experiencing an 11.4 percent increase in advertising revenue in 2005; they earned \$18.2 billion in advertising revenue compared to \$16.3 billion in 2004.<sup>362</sup>

## 2. Digital Television

107. DTV allows broadcasters to use a single 6 MHz channel to transmit a high-definition television (“HDTV”) signal, several standard-definition television (“SDTV”) signals (*i.e.*, multicasting), or ancillary services in addition to video programming.<sup>363</sup> As of January 2007, approximately 1,600 stations nationwide were on the air with DTV operations, including all 119 stations affiliated with the top-four network affiliates in the top 30 television markets.<sup>364</sup> As the transition of the nation’s broadcast television system from analog to digital television (“DTV”) nears completion, most, though not all, broadcasters are required to operate both analog and digital facilities until February 17, 2009, at which time all full-power television broadcast stations must cease their analog transmissions.<sup>365</sup>

### a. Over-the-Air Households

108. Estimates of the number of television households that rely exclusively on over-the-air television broadcasts to receive video programming vary by source, but all estimates indicate that less

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<sup>358</sup> Federal Communications Commission, *Broadcast Station Totals as of June 30, 2005*, at <http://www.fcc.gov/mb/audio/totals/bt050630.html>; Federal Communications Commission, *Broadcast Station Totals as of June 30, 2006*, at <http://www.fcc.gov/mb/audio/totals/bt060630.html>.

<sup>359</sup> Television Bureau of Advertising, *2005 TV Ad Revenue Figures*, at [http://www.tvb.org/rcentral/adrevenue/track/revenue/2005/ad\\_figures\\_1.asp](http://www.tvb.org/rcentral/adrevenue/track/revenue/2005/ad_figures_1.asp) (visited Jan. 24, 2007).

<sup>360</sup> CBS Corporation has merged its UPN network with Time Warner’s WB network to form a new network called The CW. CBS Corp., *CBS Corp and Warner Bros. Entertainment Form New 5<sup>th</sup> Broadcast Network* (press release), Jan. 24, 2007. In July 2005, Pax TV changed its name to i:Independent Television, and then to Ion Television in January 2007.

<sup>361</sup> *Id.*

<sup>362</sup> Robert J. Coen, *Insider’s Report-Advertising Expenditures*, Universal McCann, June 28, 2006.

<sup>363</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>364</sup> *Summary of DTV Applications Filed and DTV Build Out Status*, at <http://www.fcc.gov/mb/video/files/dtvsum.html> (visited Jan. 24, 2007).

<sup>365</sup> *See Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 21 FCC Rcd 12100 (2006); *The Digital Television and Public Safety Act of 2005* (“DTV Act”), amends Section 309(j)(14) of the Communications Act to establish February 17, 2009, as a new hard deadline for the end of analog transmissions by full-power stations. *See* Deficit Reduction Act of 2005, Pub. L. No. 109-171, 120 Stat. 4 (2006) (“DRA”). Title III of the DRA is the DTV Act. *See also* 47 U.S.C. § 337(e).

than 20 percent of U.S. households rely exclusively on over-the-air broadcasts to receive television. For example, on March 1, 2005, the Media Bureau released a staff report concerning over-the-air broadcast viewers (“*OTA Report*”).<sup>366</sup> At the time the *OTA Report* was released, the Commission estimated that about 14.86 percent of television households relied exclusively on over-the-air television broadcasts to receive video programming.<sup>367</sup> Nielsen estimates that, as of January 2007, 15.5 million households, or about 14 percent of the 111.4 million total U.S. television households, rely on over-the-air television broadcasts for video programming.<sup>368</sup> Commenters in this proceeding also provide estimates of the number of television households relying solely on over-the-air television reception. NAB, for example, estimates that there are as many as 19.6 million households containing 45.5 million television sets that do not subscribe to an MVPD and that there are an additional 14.7 million MVPD households with 23.5 million television sets that are not connected to MVPD service.<sup>369</sup> CEA estimates that approximately 13 percent of all television households receive their broadcast television signals over the air.<sup>370</sup> NCTA notes that at least 14 percent of television households do not subscribe to an MVPD.<sup>371</sup>

**b. Programming**

109. ***Programming Available Over the Air.*** NAB indicates that the four major broadcast networks (ABC, CBS, Fox, and NBC) currently provide their most popular programming in high definition.<sup>372</sup> Broadcasters also transmitted special events, such as the Academy Awards and numerous major sporting events in HD format over the past year.<sup>373</sup> In addition, 1,600 local stations are broadcasting digital signals, including digital multicast, with some broadcasting their local news in HD

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<sup>366</sup> *Media Bureau Staff Report Concerning Over-the-Air Broadcast Television Viewers* (MB Feb. 28, 2005) (“*OTA Report*”), available at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/DOC-257073A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/DOC-257073A1.pdf).

<sup>367</sup> *See id.* *See also 2004 Report*, 20 FCC Rcd at 2869-70 Appendix B, Table B1. The Commission’s estimates of households that do not subscribe to an MVPD service may include a number of households that are using MVPD service without paying for it, and thus overstate the number of OTA households. On the other hand, estimates of MVPD households may be overstated considering that as many as three percent of television households may subscribe to both cable and DBS services. The net effect of these inaccuracies is unknown. In addition, these figures are based on a nationwide average. It appears that the percent of OTA households varies substantially from one market to another. For example, in ten DMAs, over 80 percent of TV households subscribe to cable service. When DBS subscribers to local-into-local service are added, the total MVPD subscribership in most of these markets exceeds 85 percent. In contrast, in 13 DMAs, fewer than 50 percent subscribe to cable. *Id.* at 2872.

<sup>368</sup> Nielsen Media Research, *National Universe Estimates*, Jan. 2007, at 1. This percentage is based on Nielsen’s estimate of TV households for the 2006-2007 television season, September 2006-August 2007.

<sup>369</sup> NAB Comments at 2. NAB states that those households relying solely on over-the-air broadcasting are predominantly lower income and include relatively greater numbers of racial and ethnic minorities. *See also* NAB Comments at 3.

<sup>370</sup> CEA Comments at 7.

<sup>371</sup> NCTA Comments at 18.

<sup>372</sup> NAB Comments at 6.

<sup>373</sup> *Id.*

format.<sup>374</sup> In 2006, PBS distributed 144 hours of high-definition content per month to its member stations.<sup>375</sup> In addition, American Public Television (“APT”) supplied 91 hours of HD programming each month to its member public television stations.<sup>376</sup> Public television stations also are broadcasting multiple program streams to bring new services to the public that could not be made available using a single analog stream.<sup>377</sup>

110. ***Programming Available Through MVPDs.*** NCTA reports that, as of June 2006, local cable systems were carrying the digital signals of 788 individual broadcast stations, and cable operators offered over 25 nonbroadcast networks that transmit much of their programming in HD format.<sup>378</sup> NCTA avers that an agreement entered into between cable operators and public television stations in 2005 continues to ensure that local public television digital programming is being carried on cable systems throughout the country.<sup>379</sup> In addition, DBS systems are expanding their carriage of local HDTV stations. For example, as of January 2007, DIRECTV offered local HD broadcast channels in 49 cities, constituting more than 65 percent of all U.S. television households.<sup>380</sup> DIRECTV has announced that new satellite launches in 2007 will give it the ability to deliver more than 1,500 local HD and digital channels.<sup>381</sup> In 2006, DISH Network expanded its carriage of local HD channels from five to 24 cities, and has announced plans to expand into additional cities nationwide.<sup>382</sup>

111. APTS states that the Commission should ensure that public television digital programming is carried on DBS.<sup>383</sup> APTS notes that, while DBS providers have introduced both national

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<sup>374</sup> *Summary of DTV Applications Filed and DTV Build Out Status*, at <http://www.fcc.gov/mb/video/files/dtvsum.html> (visited Jan. 25, 2007). See also NAB Comments at 7-8.

<sup>375</sup> APTS Comments at 5-6.

<sup>376</sup> *Id.*

<sup>377</sup> *Id.*

<sup>378</sup> NCTA Comments at 28-29.

<sup>379</sup> In April 2005, public television and cable operators serving over 80 percent of cable subscribers in markets comprising over 80 percent of U.S. TV households entered into an agreement providing for the carriage of public television stations’ digital programming (including multicast channels) by cable operators. See NCTA Comments at 29.

<sup>380</sup> *DIRECTV to Offer 100 National HD Channels in 2007* (press release), at <http://www.directv.com/DTVAPP/global/contentPage.jsp?assetId=P4130030> (visited Feb. 5, 2007).

<sup>381</sup> *Id.*

<sup>382</sup> *DISH Network Launches Local TV Stations in High Definition via Satellite in 11 Cities* (press release), at <http://phx.corporate-ir.net/phoenix.zhtml?c=68854&p=irol-newsArticle&ID=858026&highlight=> (visited Feb. 5, 2007).

<sup>383</sup> APTS Comments at 26-34. In a similar vein, we note that CBA states that virtually all viewing of Class A and low power television (“LPTV”) stations is over-the-air, and urges the Commission to ensure that this “most local” of broadcast services is not cut off from the dominant media distribution technologies. CBA states that Class A and LPTV stations generally do not have mandatory carriage rights on cable systems and do not have mandatory carriage rights on broadcast satellites. Furthermore, MVPDs are not required to negotiate in good faith with Class A and LPTV stations regarding retransmission consent. CBA avers that Class A and LPTV stations have a wide range (continued....)

and local digital programming in several markets, digital signals of local public television stations are not yet carried on DBS.<sup>384</sup> Similarly, APTS argues that the Commission should ensure that new LEC video providers carry the digital signals of local public television stations, asserting that new LEC entrants' broadband networks have more than enough capacity to accommodate such programming.<sup>385</sup> APTS states that it has reached an agreement with Verizon whereby its FiOS video service will carry the full digital signal of up to three public television stations within the system's service area, including PBS and local public stations' HDTV programming and digital multicasts.<sup>386</sup> In addition, in March 2006, Verizon and CBS entered into an agreement under which FiOS agreed to carry CBS television stations and local VOD content.<sup>387</sup>

112. **Multicasting.** Multicasting is the process by which multiple streams of digital television programming are transmitted at the same time over a single broadcast channel. In the *Notice*, we requested information on the content provided using broadcasters' DTV spectrum, including the use of multicasting, and whether cable operators and other MVPDs are carrying multicast DTV programming.<sup>388</sup> NAB states that the conversion to digital is "revolutionizing broadcast television service by enabling stations to offer consumers new program choices, high quality video and audio, and advanced features at no cost to the public."<sup>389</sup> Comcast states that digital technology has enabled broadcasters to multicast their own multichannel programming, thereby offering consumers additional choices while generating more advertising revenue from these new channels.<sup>390</sup>

113. NAB indicates that, in addition to providing HD format programming, approximately 780 local stations (including stations in medium and small markets) are using their digital channels for multicast services, an increase of nearly one-third over those that did so in November 2005.<sup>391</sup> This multicast programming includes local news, weather, sports, religious material, and ethnic oriented programming.<sup>392</sup> NAB states that broadcasters also have begun to use their digital capacity to provide innovative entertainment programming to consumers, such as a multicast channel that provides DVD-like features for CBS's leading network shows.<sup>393</sup> APTS notes that public television stations are taking

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of ownership, and are often licensed to small communities or to serve niche audiences in larger communities. CBA notes that these are the only class of broadcast services required by statute to provide a minimal amount of locally produced programming, and that these stations provide highly local information, including emergency information. See CBA Comments at 1-2.

<sup>384</sup> APTS Comments at 26-34.

<sup>385</sup> *Id.*

<sup>386</sup> *Id.*

<sup>387</sup> *CBS and Verizon Reach Comprehensive Retransmission Consent Agreement* (press release), at <http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=93326> (visited Feb. 6, 2007).

<sup>388</sup> *Notice*, 21 FCC Rcd at 12249 ¶¶ 59-61.

<sup>389</sup> *NAB Consumer Electronics and Broadcast Industries Present Consensus Position on Digital TV Transition to U.S. Commerce Department's NTIA* (press release), at [http://www.nab.org/AM/Template.cfm?Section=Search\\_Archives&template=/CM/HTMLDisplay.cfm&ContentID=6843](http://www.nab.org/AM/Template.cfm?Section=Search_Archives&template=/CM/HTMLDisplay.cfm&ContentID=6843) (visited Feb. 7, 2007).

<sup>390</sup> Comcast Comments at 38-39.

<sup>391</sup> NAB Comments at 7-8.

<sup>392</sup> NAB Comments at 7-8. See also APTS Comments at 4-7.

<sup>393</sup> NAB Comments at 7-8.

advantage of digital television's technological flexibility by broadcasting multiple program streams in order to bring new services to the public that could not be made available under the constraints of a single analog program stream.<sup>394</sup> APTS cites examples of multicasting that have expanded public television programming distribution of children's educational programming, formal education services and workforce development services, locally oriented public affairs programming, and programming aimed at traditionally unserved or underserved communities, such as the elderly.<sup>395</sup>

114. ***Datacasting and Subscription Services.*** DTV also allows broadcasters to use part of their digital bandwidth for subscription video, datacasting, and other pay services.<sup>396</sup> These services can be provided simultaneously with HD or SD digital television programs, and can provide delivery of virtually any type of data, audio, or video, including text, graphics, software, web pages, video-on-demand,<sup>397</sup> and niche programming.<sup>398</sup>

115. Last year, we reported on the activities of U.S. Digital Television, Inc. ("USDTV"), which combined broadcast spectrum licensed to a number of broadcasters to create subscription video

<sup>394</sup> APTS Comments at 5.

<sup>395</sup> *Id.* at 5-8.

<sup>396</sup> Commercial and noncommercial educational DTV broadcast station licensees report annually, using Form 317, whether they have provided ancillary or supplementary services at any time during the 12 month period preceding September 30. Licensees that earn revenues from such services are required to pay fees to the Commission. *FCC Annual DTV Ancillary/ Supplementary Services Report*, 18 FCC Rcd 23972 (2003). *See also* 47 U.S.C. § 336 (a), (e). To date, the provision of ancillary and supplementary services has been modest, as indicated in the following chart:

<u>YEAR</u>	<u>NUMBER OF DTV LICENSEES THAT REPORTED FEEABLE SERVICES</u>	<u>GROSS REVENUES FROM FEEABLE SERVICES</u>	<u>FEES COLLECTED FROM FEEABLE SERVICES</u>
1999	0	\$0	\$0
2000	4	\$570,000	\$28,500
2001	2	\$390,000	\$19,500
2002	6	\$148,280	\$7,414
2003	3	\$45,000	\$2,250
2004	10	\$78,625	\$3,931
2005	11	\$176,777	\$8,839
2006	36	\$687,424	\$34,371

Source: FCC Form 317.

<sup>397</sup> Video-on-demand via over-the-air broadcast signals may be provided several ways. Broadcasters may use a model similar to that contemplated by DBS operators whereby VOD programming is broadcast and then stored in a local DVR. With the addition of an Internet connection, it is also possible to provide true VOD using broadcast spectrum for the downstream transmission of video and an Internet connection for the comparatively low-bandwidth control signals.

<sup>398</sup> *See 2004 Report*, 20 FCC Rcd at 2807-8 ¶ 84.

distribution via DTV streams.<sup>399</sup> On November 10, 2006, USDTV announced that NextGen Telecom, LLC had acquired its assets and would continue to offer a multichannel video programming service including 20-30 broadcast and nonbroadcast programming channels for \$19.95 per month using local over-the-air DTV spectrum in Salt Lake City, Las Vegas, Albuquerque, and Dallas.<sup>400</sup> However, on March 5, 2007, USDTV discontinued service due to the withdrawal of funding from its major investor, who experienced a financial setback in an unrelated business.<sup>401</sup>

116. APTS indicates that some public television stations are employing datacasting for supplemental educational programming and public safety purposes.<sup>402</sup> For example, New Jersey Network's 21<sup>st</sup> Century Digital Classroom program and WHYI, licensed to Philadelphia, Pennsylvania, are using datacasting to deliver media-rich video content over the air to students, teachers, and adults in classrooms and libraries.<sup>403</sup> Specifically, students can access educational videos from multiple libraries on classroom computers through a single portal. The content includes multimedia K-12 curricula, professional development, and adult education, and workforce training materials.<sup>404</sup> In addition, WHYI is datacasting adult education material, including 58 half-hour video segments and more than 700 pages of text which are delivered to desktop computers in libraries, community centers, and colleges.<sup>405</sup> Rocky Mountain PBS is working with the Colorado Department of Labor and Employment and the University of Colorado Health Sciences Center to enhance the education of healthcare professionals. For example, the Center's emergency room simulations and training sessions are being delivered via datacasting to classrooms, homes, and office computers.<sup>406</sup>

117. APTS also believes public television stations will play an important role in supporting a national and local digital broadcast emergency alert system ("EAS") through the digital interconnection infrastructure public broadcasting is developing.<sup>407</sup> APTS cites several public television stations and local networks that have already pioneered public safety datacasting networks, such as those in Kentucky, New Jersey, Nashville, New York City, Cincinnati, and Rochester, New York.<sup>408</sup> APTS asserts that public

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<sup>399</sup> See 2005 Report, 21 FCC Rcd at 2556 ¶ 106.

<sup>400</sup> *NexGen Telecom Acquires USDTV Assets and Continues Providing Unique Over-the-Air Cable Alternative* (press release), at <http://www.usdtv.com/about/release-11-9-2006.html> (visited Feb. 5, 2007); U.S. Digital Television, Inc., at <http://www.usdtv.com/GET-USDTV.html> (visited February 5, 2007). See also Linda Moss, *USDTV Emerges for Another Try*, MULTICHANNEL NEWS, Nov. 20, 2006.

<sup>401</sup> U.S. Digital Television, Inc., *USDTV Discontinues Low-Cost Family Friendly Digital TV Service* (press release), Mar. 5, 2007.

<sup>402</sup> APTS Comments at 18.

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

<sup>404</sup> *Id.*

<sup>405</sup> *Id.* at 18-19.

<sup>406</sup> *Id.* at 19.

<sup>407</sup> *Id.* at 19-21. The Commission examined issues pertaining to EAS and digital services in the *Review of the Emergency Alert System*, 20 FCC Rcd 18625 (2005).

<sup>408</sup> *Id.* at 20-21.

safety datacasting systems provide many advantages, including nearly instantaneous transmission of data and the ability of agencies to pinpoint the households to which the data is sent.<sup>409</sup> APTS states that because public television stations reach nearly every American household, their digital infrastructure could eventually supplement the digital broadcast Emergency Alert System as a national alert system to reach all homes, schools, businesses, and hospitals via computers.<sup>410</sup>

118. In addition, digital spectrum can be used to provide service on electronic devices. As reported last year, iBlast and dotcast 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, personal digital assistants (“PDAs”), and MP3 players.<sup>411</sup>

### c. DTV Equipment

119. The sale of DTV consumer electronics continues to accelerate; CEA estimated that in 2006, DTVs outsold analog televisions by 66 percent.<sup>412</sup> Kagan Media Research estimated that between 1998, when digital television sets were first offered for retail sale, and year-end 2006, approximately 51.8 million HD-ready and enhanced-definition (“ED”) ready sets had been shipped to retailers, with 46.4 million of those being HD-ready.<sup>413</sup> Of those shipped, Kagan estimates that a total of 49.6 million have been purchased by consumers, of which 42.9 million were HD-ready.<sup>414</sup> In 2006 alone, Kagan estimates that 22.4 million HD-ready and ED-ready sets were shipped to retailers, with 20.8 million of those HD-ready. Of those shipped, Kagan estimates that more than 21.5 million sets were purchased by consumers, with 19.8 million of those HD-ready.<sup>415</sup> We note that HD-ready sets do not necessarily have DTV tuners. Households with HD-ready sets that do not have DTV tuners must purchase a DTV tuner to receive digital television over the air, or must subscribe to an MVPD that retransmits digital signals.

120. CEA estimates that between 1998 and mid-2006, more than 35 million DTV sets have been sold to American consumers, and Americans have spent over \$50 billion to purchase DTV products.<sup>416</sup> CEA states that HDTV displays and receivers account for 80 percent of the DTV products sold to date.<sup>417</sup> CEA reports that, during the first quarter of 2006, DTV set sales grew by more than 100 percent, and estimates that in 2006, Americans will have purchased more than 19.7 million DTV sets and displays, a 73 percent increase from 2005.<sup>418</sup> CEA forecasts that by 2010, Americans will have invested

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<sup>409</sup> *Id.* at 19.

<sup>410</sup> *Id.*

<sup>411</sup> See iBlast Inc., *What is iBlast?*, at <http://www.iblast.com> (visited Feb. 4, 2007); see also Dotcast, Inc., at <http://www.dotcast.com/> (visited Feb. 4, 2007). See also *2005 Report*, 22 FCC Rcd at 2557 ¶ 108.

<sup>412</sup> CEA Comments at 4.

<sup>413</sup> Kagan Research, LLC, *Digital TV Set Projection Model*, Media Trends 2006, at 118.

<sup>414</sup> *Id.*

<sup>415</sup> *Id.*

<sup>416</sup> CEA Comments at 4-5.

<sup>417</sup> *Id.* at 4.

<sup>418</sup> *Id.* at 5.

more than \$145 billion in DTV products.<sup>419</sup> It estimates that in 2006, approximately 30 million American households will have tuned into digital broadcasts, a 16 percent increase from 2005.<sup>420</sup> CEA also forecasts that in 2007, 58.5 percent of American households will tune into digital programming, increasing to 95.6 percent by 2010.<sup>421</sup> It is reported that the current average household income of HDTV owners is \$89,500, or 42 percent above the national average.<sup>422</sup>

121. CEA estimates that in 2006 the average retail price of a DTV set declined nearly 25 percent, to \$1,043 from \$1,369 in 2005.<sup>423</sup> By comparison, the average retail price of a DTV set in 1998 was \$3,147, approximately three times the estimated average of \$1,043 for 2006.<sup>424</sup> CEA also estimates that, the average DTV price will drop to \$819 in 2007.<sup>425</sup>

122. In 2005, NAB and the Association for Maximum Service Television, Inc. (“MSTV”) announced plans to develop a high-quality, low-cost digital-to-analog converter box for terrestrial DTV reception.<sup>426</sup> In 2006, the performance of the resulting boxes was reported in a joint filing by NAB, MSTV, and CEA in the U.S. Commerce Department’s National Telecommunications and Information Administration (“NTIA”) proceeding on implementing a converter box coupon program.<sup>427</sup> The joint filing recommended minimum performance requirements for digital boxes, and endorsed an industry-wide education campaign.<sup>428</sup> In addition, in September 2006, NAB, MSTV, CEA, and more than a dozen public interest groups, trade associations, and companies submitted a letter to NTIA endorsing a set of principles to support a successful DTV transition.<sup>429</sup> In March 2007, NTIA announced the final rule for the digital-to-analog converter box coupon program.<sup>430</sup> Manufacturers of converter boxes that can be

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<sup>419</sup> *Id.*

<sup>420</sup> *Id.* at 2.

<sup>421</sup> *Id.*

<sup>422</sup> See Leichtman Research Group, *HDTV 2006: Consumer Awareness, Interest and Ownership*, at <http://www.leichtmanresearch.com/research.html> (visited Feb. 7, 2007).

<sup>423</sup> CEA Comments at 5.

<sup>424</sup> *Id.*

<sup>425</sup> *Id.*

<sup>426</sup> NAB Comments at 5.

<sup>427</sup> *Id.* See also CEA Comments at 1-2. Congress set a deadline of February 17, 2009, for the end of the DTV transition and the termination of analog television broadcasting. Congress charged NTIA with developing a program to provide consumers with low-cost, digital-to-analog converter boxes that will enable analog television receivers to function after the transition.

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

<sup>429</sup> NAB Comments at 5.

<sup>430</sup> NTIA, *Commerce Department Issues Final Rule To Launch Digital-to-Analog Converter Box Coupon Program* (press release), Mar. 12, 2007.

purchased with coupons must build devices that include specific features and meet certain performance specifications identified in the final rule.<sup>431</sup>

**d. DTV Transition**

123. In the *2005 Report*, the Commission described several rulemaking decisions adopted during 2005 intended to accelerate or promote the transition to DTV.<sup>432</sup> This year, we report on the Commission's continuing efforts to foster the DTV transition.<sup>433</sup>

124. ***DTV Signal Carriage Proceeding.*** In February 2005, the Commission issued the *Digital Must Carry Second Report and Order* and *Digital Must Carry First Reconsideration*.<sup>434</sup> The Commission continues to consider petitions requesting reconsideration or clarification with respect to the Commission's decisions on Program System and Information Protocol ("PSIP") carriage and channel numbering, carriage of program-related material, material degradation, and down-conversion of digital-only stations.<sup>435</sup>

125. ***Channel Election and Designation.*** In the *Second Periodic Review*, the Commission adopted a multi-step channel election process through which commercial and noncommercial broadcast licensees and permittees (licensees) select their ultimate "in-core" DTV channel (*i.e.*, channels 2-51).<sup>436</sup> Under this process, licensees elected their preferred post-transition channel over the course of three

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<sup>431</sup> *Id.*

<sup>432</sup> *2005 Report*, 21 FCC Rcd at 2559-60 ¶¶ 113-117.

<sup>433</sup> See Deficit Reduction Act of 2005, PL 109-171 (2006). Among other things, Title III, entitled the Digital Television Transition and Public Safety Act of 2005, establishes a hard deadline of February 17, 2009 for the end of analog transmissions and the transition to digital television. It allocates approximately \$990 million of the estimated \$10 billion in proceeds from the auction of the analog broadcast spectrum for a digital-to-analog converter box program.

<sup>434</sup> See *Carriage of Digital Television Broadcast Signals: Amendment to Part 76 of the Commission's Rules, Second Report and Order and First Order on Reconsideration*, 20 FCC Rcd 4516 (2005) ("*Digital Must Carry Second Report and Order* and *Digital Must Carry First Reconsideration*") (released in a single proceeding) (affirming the tentative conclusion not to require carriage of both a broadcaster's analog and digital signals during the transition). See also 47 C.F.R. § 1.429 (setting forth basis for granting petitions for reconsideration).

<sup>435</sup> *Id.* PSIP is data that is transmitted along with a station's DTV signal that tells DTV receivers information about the station and what is being broadcast. PSIP provides a method for DTV receivers to identify a DTV station and to determine how a receiver can tune to it. See ATSC's PSIP website at <http://www.psip.org/>. PSIP identifies both the DTV channel and the associated NTSC channel and enables DTV receivers to associate the two channels, thereby making it easy for viewers to tune to the DTV station even if they do not know the channel number. In addition to identifying the channel number, PSIP tells the receiver whether multiple program channels are being broadcast and, if so, how to find them. It also identifies whether the programs are closed captioned, and conveys available v-chip information, among other things. See *Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 19 FCC Rcd 18279, 18343-5 (2004) ("*Second DTV Periodic Review*").

<sup>436</sup> See *Second DTV Periodic Review*. Because digital technology allows DTV channels to be spaced more closely together, the spectrum allocated to broadcast television will shrink. At the end of the DTV transition, 108 MHz of spectrum in the 700 MHz band currently used by broadcast channels 52-69 will be made available for wireless services – 24 MHz for urgent public safety needs and the remainder for advanced commercial wireless services.

rounds.<sup>437</sup> In 2005, the Media Bureau announced tentative DTV channel designations and interference conflicts for licensees participating in the first round,<sup>438</sup> and in 2006 for licensees participating in the second and third rounds.<sup>439</sup> In October 2006, the Commission undertook the final step in the channel selection process by proposing a new DTV table of allotments that will provide all eligible stations with channels for DTV operations after the DTV transition.<sup>440</sup>

126. **Third DTV Periodic Review.** The Commission recently adopted its *Third DTV Periodic Review*, proposing procedures and rule changes necessary to complete the transition. In view of the statutory change from a market-by-market transition to a hard deadline (*i.e.*, February 17, 2009), the Commission's focus has moved from simply ensuring that stations are operating in digital to providing regulatory flexibility to facilitate broadcasters' construction of their final, post-transition channel with facilities that will reach viewers in their authorized service areas by the time they must cease broadcasting in analog.<sup>441</sup>

**e. Educational Efforts**

127. In the *2005 Report*, we provided information on consumer education efforts by CEA, the Consumer Electronics Retail Coalition ("CERC"), and NAB.<sup>442</sup> These educational efforts continue. For example, these organizations continue to operate web sites, host conventions, and produce videos and publications designed to provide consumers with information about the transition. A consumer and retailer web site, <http://www.checkhd.com>, operated by Decisionmark, continues to provide information about the availability of local digital and HD channels, information on how to purchase a digital set, and answers to basic DTV questions.<sup>443</sup> CEA operates several web sites designed for both retail sales associates and consumers,<sup>444</sup> and continues to host media tours aimed at providing HDTV information

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<sup>437</sup> *Id.*

<sup>438</sup> See *DTV Tentative Channel Designations for 1,554 Stations Participating in the First Round of DTV Channel Elections*, 20 FCC Rcd 10983 (MB 2005).

<sup>439</sup> See *Tentative Digital Channel Designations for Stations Participating in the Second Round of DTV Channel Elections and Third Round Election Filing Deadline*, 21 FCC Rcd 5080 (MB 2006); *Tentative Digital Channel Designations for Stations Participating in the First and Second Rounds of the DTV Channel Election Process*, 21 FCC Rcd 5862 (MB 2006) (one additional first round TCD was announced in addition to the 75 second round TCDs); *Third Round of the DTV Channel Election Process: Tentative Channel Designations*, 21 FCC Rcd 9572 (MB 2006).

<sup>440</sup> *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, 21 FCC Rcd 12100 (2006).

<sup>441</sup> *Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*, 22 FCC Rcd 9478, 9492 (2007) ¶ 34.

<sup>442</sup> *2005 Report*, 21 FCC Rcd at 2560-61 ¶¶ 118-120.

<sup>443</sup> CheckHD includes information about local channels and programming, antenna selection by zip code, and DTV equipment.

<sup>444</sup> Antennaweb.com determines the free over-the-air DTV signals that can be received in a given geographic area or television market and what type of antenna is needed to receive those signals over the air. CEknowhow.com provides training products for retail sales associates. *The Connections Guide*, [www.ce.org/connectionsguide/](http://www.ce.org/connectionsguide/), is (continued....)

updates to local retailers, broadcasters, manufacturer representatives, and cable and satellite providers.<sup>445</sup>

128. CERC has issued a retail consumer guide that focuses on the choices that consumers will have when analog broadcasting ends.<sup>446</sup> CEA continues to distribute a consumer and retailer tip sheet, *Buying a Digital Television* that it produced in partnership with the Commission and CERC. This “tip sheet” explains the DTV transition, as well as defining basic DTV terms and technology.<sup>447</sup>

129. In addition, several organizations in February 2007 announced the establishment of a coalition including representatives from private industry, trade associations, civil rights organizations, and community groups, plus the National Telecommunications and Information Administration (“NTIA”), to work together on a comprehensive consumer education campaign to increase awareness of the DTV transition.<sup>448</sup> Also, the Digital Television Transition and Public Safety Act of 2005 authorizes \$5 million for NTIA to conduct a consumer education campaign regarding the DTV transition and the availability of converter equipment.

## **E. Other Wireline Video Services**

### **1. Local Exchange Carriers**

130. The 1996 Act amended Section 651 of the Act to permit 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 Act;<sup>449</sup> (2) provide transmission of video programming on a common carrier basis under Title II of the Act;<sup>450</sup> (3) provide video programming as a cable system under Title VI of the Act;<sup>451</sup> or (4) provide video programming by means of an open video system (“OVS”).<sup>452</sup>

131. In recent *Reports*, we observed that LECs were increasingly interested in providing video services.<sup>453</sup> In the last year, LECs, most notably Verizon and AT&T, have expanded the areas where they provide facilities-based video services. LECs continue to focus on offering bundles of services, including

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designed to help consumers better understand how to connect their DTV products. CEA Comments at 14-15. See also CEA, at <http://www.ce.org/hdtv>.

<sup>445</sup> CEA has hosted a “Satellite Media Tour” that featured information regarding the transition from analog to digital. CEA Comments at 15.

<sup>446</sup> *Id.* at 16. CEA notes that in March 2006, it announced a voluntary labeling program for televisions that contain only analog tuners. CEA Comments at 4.

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

<sup>448</sup> NCTA, *Countdown to February 2009: Digital Television Transition (DTV) Coalition Pledges to Alert Consumers about Transition from Analog to Digital TV* (press release), Feb. 28, 2007.

<sup>449</sup> 47 U.S.C. § 571(a)(1).

<sup>450</sup> 47 U.S.C. § 571(a)(2).

<sup>451</sup> 47 U.S.C. § 571(a)(3).

<sup>452</sup> 47 U.S.C. § 571(a)(3)-(4).

<sup>453</sup> For example, Verizon state that it intends to invest \$18 billion in net capital from 2004 through 2010 in deploying its fiber network. See Verizon Communications Inc., *Verizon Provides New Financial and Operational Details on its Fiber Network as Deployment Gains Momentum* (press release), Sept. 27, 2006 (“Verizon Details on Fiber Network”).

local and long distance telephone, high-speed Internet service, and video programming service.<sup>454</sup> In order to offer these services, LECs are entering into joint ventures with MVPD service providers, such as DBS operators, or are providing MVPD service over their own recently upgraded facilities. Some LECs are deploying fiber-to-the-home (“FTTH,” also known as fiber-to-the-premises, or “FTTP”) infrastructure. In addition, LECs are increasingly utilizing Internet Protocol Television (“IPTV”) technologies.

132. Verizon continues to pursue deployment of facilities-based commercial video service in several communities around the country. Verizon’s FiOS FTTH network allows delivery of multichannel video services in addition to telephony and high-speed Internet access service.<sup>455</sup> Verizon first deployed its FiOS service in Keller, Texas, in September 2005, and continues to obtain franchises and launch the service in other communities.<sup>456</sup> At the end of 2006, Verizon reported that it offered video programming via FiOS TV to more than 2.4 million households in 200 cities in 10 states and served 207,000 subscribers.<sup>457</sup>

133. Since last year’s *Report*, AT&T has increased its video service deployment through its “U-verse” FTTH product. According to AT&T, as part of its “Project Lightspeed,” program, it intends to offer U-verse services in 41 markets over the next three years.<sup>458</sup> At the end of 2006, AT&T served approximately 11 cities in Texas, California, Indiana, and Connecticut.<sup>459</sup> AT&T further notes that this deployment will provide the full suite of U-verse services, including voice, high-speed Internet access, and video services, and that, within three years, it expects to serve 5.5 million low income households.<sup>460</sup> In addition, AT&T continues to partner with EchoStar Communications to resell Dish Network DBS

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<sup>454</sup> Fiber-To-The Home Council Comments at 2. According to the Fiber-To-The Home Council, offering the so called “triple-play” increasingly is becoming a competitive necessity. *Id.* In addition, AT&T and Verizon seek to include wireless services as part of this bundle. AT&T plans to offer integrated wireline and wireless designed to blur the distinctions between local telephone, MVPD, and high speed Internet services. Leslie Cauley, *ATT Cable Plan Includes Wireless*, USA TODAY, Oct. 31, 2006, B-3. Similarly, in addition to offering video programming and IPTV via FiOS, Verizon is continuing to market video services over its wireless system. See Section II.F.3 *infra*.

<sup>455</sup> Verizon Comments at 4.

<sup>456</sup> *2005 Report*, 21 FCC Rcd at 2562 ¶ 124.

<sup>457</sup> See also *Verizon 4Q 2006 Results Cap Strong Organic Growth in Wireless, Broadband and Business Markets* (press release), Jan. 29, 2007.

<sup>458</sup> *AT&T Initiatives Expand Availability of Advanced Communications Technologies Company Enhances Broadband Reach Through Innovative Technologies: Satellite, Fixed Wireless and Wimax Details the Availability of Project Lightspeed to Low-Income Households* (press release), May 8, 2006 (“AT&T May 8, 2006 Press Release”).

<sup>459</sup> *Internet Technology Tests AT&T's Bid For TV Subscribers*, WALL STREET JOURNAL, Feb. 7, 2006. In addition, in October 2006, AT&T stated that it had 3,000 U-verse subscribers. See also *AT&T Posts Strong Fourth-Quarter Earnings Growth, Reaffirms Outlook for Double-Digit Growth Adjusted Earnings Per Share* (press release), Jan. 25, 2007. AT&T reports that it had 635,000 subscribers for all video services including AT&T/Dish Network satellite television and AT&T U-verse service at the end of 2006.

<sup>460</sup> AT&T May 8, 2006 Press Release.

service and currently has 583,000 co-marketed (or resale) subscribers.<sup>461</sup> Prior to its merger with AT&T, BellSouth noted that it held 20 franchises to provide cable overbuild service in its local telephone service area.<sup>462</sup> According to BellSouth, its facilities-based video service was available to 200,000 households and had approximately 35,000 subscribers in 14 markets.<sup>463</sup> In addition, BellSouth noted that it entered into a strategic marketing alliance with DIRECTV to offer digital satellite service to BellSouth residential customers. As of the third quarter of 2006, approximately 756,000 BellSouth customers had added DIRECTV service to the bundles of services to which they subscribe.<sup>464</sup> BellSouth also reported that it is studying the use of IPTV for further distribution of multichannel video services.<sup>465</sup>

134. Qwest also is pursuing opportunities to provide bundles of services, including various technological configurations of video services such as satellite, IPTV, and video delivered via wireless telephones.<sup>466</sup> Qwest currently resells DIRECTV service throughout its 14-state service region.<sup>467</sup> Qwest also is beginning to take steps to provide IPTV service in its service area.<sup>468</sup> In addition, Qwest continues to seek video franchise agreements and already has agreements in select neighborhoods in Colorado, Arizona, Nebraska, and Utah.<sup>469</sup>

## 2. Open Video Systems

135. 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>470</sup> BSPs,

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<sup>461</sup> *AT&T's U-verse Planned for 15 Cities*, MULTICHANNEL NEWS, OCT. 30, 2006, at 13 (“*Multichannel News October 30, 2006 Article*”).

<sup>462</sup> BellSouth Comments at 1-2.

<sup>463</sup> BellSouth Comments at 1-2.

<sup>464</sup> BellSouth Comments 2.

<sup>465</sup> BellSouth Comments at 2-3. BellSouth also notes that upon approval of its merger with AT&T, it expects the combined company to be in a better position to further deploy IPTV in BellSouth’s service area. *Id.*

<sup>466</sup> Beth Potter, *Qwest To Expand TV Service*, DENVER POST, Jul. 5, 2006, at [http://www.denverpost.com/business/ci\\_4011840](http://www.denverpost.com/business/ci_4011840) (stating that Qwest has 1 million subscribers taking bundles of services) (“*Denver Post July 5, 2006 Article*”).

<sup>467</sup> Andy Vuong, *Qwest: DirecTV Deal Not Window Dressing*, DENVER POST, Dec. 19, 2006, at [http://www.denverpost.com/headlines/ci\\_4863836](http://www.denverpost.com/headlines/ci_4863836) (“*Denver Post December 19, 2006 Article*”).

<sup>468</sup> *Denver Post July 5, 2006 Article*. According to this story, Qwest provides its video offerings using high-speed fiber-optic lines or over copper video digital subscriber lines.

<sup>469</sup> *Denver Post December 19, 2006 Article*.

<sup>470</sup> We treat OVS providers in a separate section to highlight the separate regulatory classification that Congress created. 47 U.S.C. §571(a)(3)-(4); *1996 Report*, 12 FCC Rcd at 4395-98 ¶¶ 68-71. The OVS framework was designed to streamline the process of entering local MVPD markets by relieving OVS operators of certain regulatory requirements. Title VI regulations apply somewhat differently to OVS certified providers than they apply to cable operators. 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. Among the rules that apply to open video (continued....)

however, are the only significant holders of OVS certifications or local OVS franchises.<sup>471</sup> Most, if not all, OVS providers are also overbuilders.<sup>472</sup> BSPA reports that new OVS activity has been limited, but that some of its members have converted cable franchises into OVS franchises, which has enabled some BSPs to eliminate build-out requirements.<sup>473</sup> BSPA maintains that build-out requirements limit wireline video competition by increasing the costs of entry.<sup>474</sup> BSPA argues that most incumbent cable operators have had decades to build, upgrade, expand, and market their networks and services to current service boundaries with limited or no competition. Significant portions of the funding for this historical expansion came from ongoing operations rather than the capital markets. Today's new entrants, however, do not have the advantage of significant ongoing operations, and have to rely more heavily on the capital markets to finance their expansion. Thus buildout requirements, according to BSPA, are anticompetitive and a barrier to entry into the video marketplace.<sup>475</sup>

### 3. Electric and Gas Utilities

136. Last year, we observed that municipal electric and gas utilities continue to move forward with multichannel video program distribution that provides video services through traditional fiber-optic networks.<sup>476</sup> In the *Notice*, we sought information regarding utility companies that provide video services, including broadband over power lines (“BPL”).<sup>477</sup>

137. APPA, which represents more than 2,000 not-for-profit community and state-owned electric utilities, reports that a recent APPA survey of municipal broadband service providers found that 100 association members provide video services, many in combination with high-speed Internet service and telephony, at a discounted price for bundled services.<sup>478</sup> The APPA survey indicates that the average subscriber penetration rate was 50 percent of homes passed by utility video services, and that 40 percent

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systems are 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>471</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 Feb. 5, 2007).

<sup>472</sup> *2004 Report*, 20 FCC Rcd at 2801 ¶ 70.

<sup>473</sup> BSPA Comments at 6-7. OPASTCO reports that fewer than 3 percent of its members provide service under OVS certification, a decline from the roughly 8 percent OPASTCO reported last year. Compare OPASTCO Reply Comments at 3, with *2005 Report*, 21 FCC Rcd at 2549 ¶ 88 n.336.

<sup>474</sup> BSPA Comments at 15.

<sup>475</sup> *Id.*

<sup>476</sup> *2005 Report*, 21 FCC Rcd at 2563-7 ¶¶ 126-8. See also CEA Comments at 8, Comcast Comments at 55.

<sup>477</sup> *Notice*, 21 FCC Rcd at 12248 ¶ 54. BPL is a new type of technology that provides access to high-speed Internet service using electric utility companies’ power lines. It has the potential to extend high-speed Internet service to unserved and underserved areas because power lines reach virtually every U.S. residence and business. It also could introduce additional competition to existing cable, DSL, and other high-speed Internet services. See *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*, 19 FCC Rcd 21265, 21266 (2004) ¶ 2 (“2004 BPL Order”).

<sup>478</sup> APPA Reply at 1-3. APPA notes that 70 percent of its member utility providers serve communities with less than 10,000 residents.

of these subscribers purchase a combination of video and high-speed Internet access service.<sup>479</sup> APPA indicates that incumbent cable operators lower prices or offer additional services in response to utility competition, and that cable operators have used predatory pricing by lowering subscription rates by 50 percent in some instances where utility competition exists.<sup>480</sup> Similarly, the FTTH Council cites the example of Bristol Virginia Utilities (“BVU”), a municipal MVPD with a 50 percent market share for video services.<sup>481</sup> FTTH Council asserts that BVU offers lower prices than incumbent cable operators for nearly all services provided, 20 percent lower in some cases.<sup>482</sup>

138. In August 2006, the Commission responded to petitions for reconsideration by generally affirming its technical standards, operating restrictions, and measurement procedures for BPL systems to minimize interference.<sup>483</sup> In November 2006, the Commission classified BPL Internet access service as an information service under the Act.<sup>484</sup> CEA and others assert that these recent Commission actions remove uncertainty regarding the classification of BPL service and will facilitate the development of this technology.<sup>485</sup> A number of utilities are offering, or plan to offer, video services using BPL technology, including Current Communications, offering video to 60,000 Cincinnati residents; ANEW Broadband services, providing on-demand video in hotels and niche markets in Florida; and KlikVU, Inc., which has announced plans to stream VOD programming, including movies, television, sports, and foreign language films in Texas.<sup>486</sup> In addition, Sharp is introducing flat-screen TVs that will be able to receive video via BPL.<sup>487</sup> Further, Comcast states that 20 percent of national utility services are considering investments in BPL, but may be awaiting the launch of TXU’s BPL network to gain confidence in supporting the new

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<sup>479</sup> APPA Reply at 4.

<sup>480</sup> APPA Reply at 4. *See also* Vicky Aldous, *Cable Wars*, ASHLAND DAILY TIDINGS, Mar. 3, 2005, at <http://www.dailytidings.com/2005/0303/030305n1.shtml> (visited Jan. 30, 2007).

<sup>481</sup> FTTH Comments at 8-9.

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

<sup>483</sup> *See 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*, 21 FCC Rcd 9308 (2006). *See also* 2004 BPL Order.

<sup>484</sup> *United Power Line Council’s Petition For Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service*, 21 FCC Rcd 13281 (2006).

<sup>485</sup> *See* CEA Comments at 8. *See also* NCTA Comments at 41; Comcast Comments at 55-57.

<sup>486</sup> Comcast Comments at 56-57. BPL operators are expected to include mainstream networks, such as QVC, Encore, STARZ!, Discovery, A&E, and Lifetime. BPL is attracting significant investment capital. For example, Current Communications has secured \$130 million in funding from TXU Corp, Earthlink, General Electric, Google Inc., Goldman Sachs & Co., and The Hearst Corp. *Id.* at 57.

<sup>487</sup> Sharp Electronics Corp., *Sharp Extends LCD Leadership with One-of-a-Kind Technology Demonstrations* (press release), Jan. 8, 2007.

infrastructure.<sup>488</sup> However, forecasters indicate that BPL technology may face low penetration rates as the market for bundled services is saturated.<sup>489</sup>

## F. Other Wireless Video Services

### 1. Private Cable Systems

139. Private cable operator (“PCO”) systems, also known as satellite master antenna (“SMATV”) systems, are video distribution facilities that do not use any public rights-of-way.<sup>490</sup> PCOs acquire video programming and distribute it via wiring in urban and suburban multiple dwelling units (“MDUs”), such as apartments and condominiums, as well as commercial multiple tenant units (“MTUs”), including hotels and office buildings. Traditionally, PCOs receive 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. In the last 10 years, PCOs have increasingly used wired, wireless, and DBS technologies to provide voice and data communications services as well.<sup>491</sup> Thus, the packages PCOs provide their subscribers are comparable to those of cable systems, and they directly compete with franchised cable operators.

140. PCOs continue to serve a small number of MVPD subscribers, either through their own facilities or through partnership arrangements with DBS operators DIRECTV and EchoStar.<sup>492</sup> PCO subscribership has declined to 900,000 subscribers this year, a decrease of 10 percent from last year’s 1 million subscribers.<sup>493</sup> The Independent Multi-Family Communications Council (“IMCC”), the trade association that represents PCOs and the MDUs they serve, indicates that PCOs serve about 1 to 2 percent of the MVPD marketplace, although they comprise 6 to 8 percent of the market with respect to MDUs of 100 units or more.<sup>494</sup> It also states that most PCOs serve between 3,000 and 4,000 customers.<sup>495</sup>

### 2. Wireless Cable Systems

141. Wireless cable systems use Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) spectrum in the 2 GHz band to transmit video programming and provide

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<sup>488</sup> Comcast Comments at 57.

<sup>489</sup> Dinesh Kumar, *Analysts Tie BPL Growth in 2007 to Tex. Project’s Fate*, COMM. DAILY, Jan. 22, 2007, at 5.

<sup>490</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 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>491</sup> IMCC Reply Comments at 2-3.

<sup>492</sup> See *2005 Report*, 21 FCC Rcd at 2564 ¶ 130.

<sup>493</sup> Kagan Research, LLC, *Basic Cable Network Economics, 2005-2015*, Media Trends 2006, at 64.

<sup>494</sup> IMCC Reply Comments at 2. In 2005, we reported that IMCC had more than 150 members operating throughout the United States. *2005 Report*, 21 FCC Rcd at 2563 ¶ 130. For a list of members, see Independent Multi-Family Communications Council, at <http://www.imcc-online.org/membership> (visited Feb. 1, 2007).

<sup>495</sup> IMCC Reply Comments at 2.

broadband services to residential subscribers.<sup>496</sup> These services were originally designed for the delivery of multichannel video programming, similar to that of traditional cable systems, but, over the past several years, licensees have focused their operations instead on providing two-way high-speed Internet access services.<sup>497</sup> The number of wireless cable subscribers has declined steadily from a peak of 1.2 million in 1996 to approximately 100,000 in 2006, unchanged from 2005.<sup>498</sup> Wireless cable systems provide video competition to incumbent cable operators on only a limited basis.

### 3. Commercial Mobile Radio Service and Other Wireless Providers

142. In recent years, major commercial mobile radio service (“CMRS”) and other wireless providers have begun offering services that allow subscribers to access video programming over the air on cellular phones and other mobile devices. Video content available on mobile phones includes: (1) linear television programming, which matches the programming being aired at the same time on a television broadcast or nonbroadcast network; (2) mobile-only video channels; (3) on-demand video clips, available for download, of content aired on television networks or content available exclusively to mobile phones; (4) full-length, pay-per-view movies; and (5) user-generated videos uploaded to Internet sites, such as YouTube.com.<sup>499</sup> Estimates of the number of users of mobile video services in the United States range from 2 to 8 million.<sup>500</sup>

143. As mentioned in the *2005 Report*, Verizon Wireless launched its mobile video and multimedia service, V CAST, in February 2005.<sup>501</sup> The V CAST service allows customers to download games, music, and video clips on demand, including clips of television programming aired on networks such as ESPN, CNN, The Weather Channel, Nickelodeon, MTV, and Comedy Central, as well as clips of videos uploaded on YouTube.com.<sup>502</sup> The service is available to Verizon Wireless subscribers whose mobile devices run on the carrier’s CDMA EV-DO mobile broadband network, which allows download speeds of 400-800 kilobits per second (“kbps”).<sup>503</sup> In March 2007, Verizon Wireless launched an expanded mobile television service for V CAST using Qualcomm’s MediaFLO technology. As of April

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<sup>496</sup> This spectrum was previously known as multipoint distribution service (“MDS”) and instructional television fixed service (“ITFS”) until the Commission renamed them in *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>497</sup> *2004 Report*, 20 FCC Rcd at 2814 ¶¶ 104-106.

<sup>498</sup> NCTA Comments at 9.

<sup>499</sup> Comcast Comments at 50-51; CEA Comments at 5-6.

<sup>500</sup> Telephia, *U.S. Mobile TV Users Hit 2 Million Mark* (press release), May 24, 2006 (2 million subscribers as of First Quarter, 2006); Comcast Comments at 50.

<sup>501</sup> See *2006 Report*, 21 FCC Rcd at 2566 ¶ 134.

<sup>502</sup> Verizon Wireless - Get It Now, *V CAST – Browse Clips*, at [http://getitnow.vzwshop.com/index.aspx?id=vcast\\_video\\_browse](http://getitnow.vzwshop.com/index.aspx?id=vcast_video_browse) (visited Jan. 19, 2007); NCTA Comments at 25-26.

<sup>503</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, 21 FCC Rcd 10947 (2006).

2007, the service was available in 27 markets and on two handset models.<sup>504</sup> The new service will rely on Qualcomm's MediaFLO video multicasting technology and will enable subscribers to view linear video programming from networks such as Fox, CBS, MTV, Comedy Central, and Nickelodeon on compatible mobile devices.<sup>505</sup>

144. Sprint Nextel also offers a mobile video service, Sprint TV, to customers whose handsets are compatible with Sprint Nextel's EV-DO network. Subscribers to this service can view linear television programming from 20 nonbroadcast networks, including the Discovery Channel, the Weather Channel, C-SPAN, and Fox News, as well as video content from several mobile-only channels.<sup>506</sup> In addition, in September 2006, Sprint Nextel launched a pay-per-view movie download service that allows customers to download and view full-length movies on their cell phones.<sup>507</sup>

145. MobiTV, launched in November 2003, is a mobile television service available to subscribers of Sprint Nextel, Cingular, Alltel, U.S. Cellular, and other mobile telephone carriers with a MobiTV-compatible phone. Customers can watch linear networks, such as MSNBC, CNBC, Fox News, and TLC, as well as several mobile-only video channels, for an additional \$9.99 per month. In January 2007, MobiTV announced that it was testing technology that will allow mobile WiMAX network operators to offer interactive mobile television services.<sup>508</sup>

146. MobiTV also announced in January 2007 that Sprint Nextel planned to use MobiTV's mobile television technology and service as a means to extend the video services offered through Sprint Nextel's joint venture with major cable companies, including Comcast, to mobile handsets.<sup>509</sup> In 2006, Sprint Nextel partnered with Comcast and other major cable companies in a joint venture called SpectrumCo to participate in the Commission's Advanced Wireless Services auction.<sup>510</sup> In that auction,

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<sup>504</sup> Brad Smith, *Mobile TV's High Wire Act*, *Wireless Week*, Apr. 15, 2007; Verizon Wireless, *V CAST Mobile TV*, [www.verizonwireless.com/mobiletv](http://www.verizonwireless.com/mobiletv) (visited Apr. 18, 2007).

<sup>505</sup> Verizon Wireless, *Verizon Wireless Lifts Curtain on V CAST Mobile TV; True Broadcast Quality, the Best of TV* (press release), Jan. 7, 2007. MediaFLO is a one-way, multicast video service that uses Qualcomm's spectrum licenses in the 700 MHz band. The service relies on Verizon Wireless's two-way CDMA network for any uplink communications.

<sup>506</sup> Sprint Nextel, *Sprint TV Live Launches on Sprint Multimedia Handsets* (press release), Sept. 26, 2005.

<sup>507</sup> Sprint Nextel, *Sprint Is First to Offer Full-Length "Pay-Per-View" Movies on Mobile Phones in U.S.* (press release), Sept. 5, 2006; NCTA Comments at 25-26. Movies cost between \$3.99 and \$5.99 each, and, once purchased, are available to the customer for viewing for a time period ranging from 24 hours to one week depending on the title. Sprint Nextel, *Sprint Is First to Offer Full-Length "Pay-Per-View" Movies on Mobile Phones in U.S.* (press release), Sept. 5, 2006.

<sup>508</sup> MobiTV, *MobiTV Provides Mobile Television Service for Sprint – Cable Companies Joint Venture* (press release), Jan. 8, 2007. WiMAX ("World Interoperability for Microwave Access") was formed in June 2001 to promote conformance and interoperability of the IEEE 802.16 standard and to provide wireless data over long distances, in a variety of ways, from point-to-point links to full mobile cellular type access. *See also* ¶ 274 *infra*.

<sup>509</sup> MobiTV, *MobiTV Demonstrates First Ever Mobile WiMAX Broadcast TV Service* (press release), Jan. 7, 2007.

<sup>510</sup> Comcast Comments at 72-73.

SpectrumCo won 137 licenses capable of serving 267 million people; the spectrum will allow Comcast to cover 99 percent of its cable footprint with wireless capabilities.<sup>511</sup>

147. Tower company Crown Castle has been running trials of mobile television services through its Modeo subsidiary. After testing the service in Pittsburgh, Pennsylvania, for three years, Modeo began offering a beta trial of its mobile television service in January 2007 for several hundred users in New York City.<sup>512</sup> Modeo's service uses the DVB-H (Digital Video Broadcast-Handset) mobile video technology standard and Crown Castle's spectrum license in the 1670-1675 MHz band.<sup>513</sup> The service allows subscribers to access linear television programming from several networks, including Fox News and The Discovery Channel. While Modeo is managing the trial of its service in New York, the company ultimately plans to offer its service wholesale to mobile telephone carriers, which will then sell it to end users with DVB-H-compatible handsets. Like Qualcomm's MediaFLO service, Modeo relies on mobile telephone carrier networks for any uplink communications.

148. Aloha Partners, a major holder of spectrum in the 700 MHz band, is also planning to use DVB-H technology in its mobile television venture, Hiwire.<sup>514</sup> T-Mobile is reportedly testing Hiwire's service.<sup>515</sup>

149. In January 2007, Cingular Wireless and Apple Computer unveiled the iPhone device, which the companies plan to begin selling in June 2007.<sup>516</sup> The iPhone is a wireless phone and multimedia device that runs on Cingular Wireless's EDGE network.<sup>517</sup> Users can load music and video content, available through Apple's iTunes software and online store, onto the iPhone; however, the music and video content must be loaded onto the iPhone from a PC (as it must be to an iPod) and will not be accessible for over-the-air downloads.<sup>518</sup>

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<sup>511</sup> *Auction of Advanced Wireless Services Licenses Closes*, 21 FCC Rcd 10521 (2006); Comcast Comments at 72-73.

<sup>512</sup> Modeo, *Modeo Launches Live Mobile TV Beta Service in Nation's Largest Metro Area* (press release), Jan. 8, 2007.

<sup>513</sup> See *2005 Report*, 21 FCC Rcd at 2606 ¶ 230; Letter from Ari Q. Fitzgerald, Counsel to Crown Castle International Corp., to Marlene H. Dortch, Secretary, FCC, Attachment (presentation to the FCC on the use of the 1670-1675 MHz Band) at 3 (Sept. 28, 2006).

<sup>514</sup> *Modeo Tests Live Cellular TV Service in New York City*, AP, Jan. 9, 2007.

<sup>515</sup> Joni Morse, *Modeo Flips on Live TV in NYC*, WIRELESS WEEK, Jan. 8, 2007.

<sup>516</sup> Cingular, *Apple Chooses Cingular as Exclusive U.S. Carrier for Its Revolutionary iPhone* (press release), Jan. 9, 2007.

<sup>517</sup> Cingular, *Apple Chooses Cingular as Exclusive U.S. Carrier for Its Revolutionary iPhone* (press release), Jan. 9, 2007; Li Yuan, *iPhone Fans and Foes Clash Online*, THE WALL STREET JOURNAL, Jan. 18, 2007, at B3.

<sup>518</sup> Cingular, *Apple Chooses Cingular as Exclusive U.S. Carrier for Its Revolutionary iPhone* (press release), Jan. 9, 2007; Li Yuan, *iPhone Fans and Foes Clash Online*, THE WALL STREET JOURNAL, Jan. 18, 2007, at B3.

## G. Other Entrants

### 1. Web-Based Internet Video

150. The amount of web-based video available over the Internet continues to increase significantly each year.<sup>519</sup> As we have reported in the past, many traditional broadcast and nonbroadcast programmers, as well as many independent content producers, currently provide streaming and downloadable video content on their Internet web pages.

151. Streaming is a technique used for transferring data on the Internet such that it can be sent and received as a steady and continuous stream.<sup>520</sup> Streaming technologies are becoming increasingly important with the growth of the Internet because many users do not have fast enough access to download large multimedia files quickly, and do not want to wait for large multimedia files to download entirely before viewing them. With streaming video, the end-user can connect to the video provider's server through its web site, and then use streaming software (such as Real Player, Windows Media Player, Apple's QuickTime or another proprietary application) to view the video in "real-time." With streaming technology, the user can start displaying the video before the entire video file has been transmitted.

152. As we reported last year, a large amount of video available through the web is downloadable. Downloadable video continues to be available from the web sites of both traditional and independent programmers. We expect that a large amount of video available through the web will continue to be downloadable video. Numerous online services allow users to download content to a computer hard drive for viewing on a personal computer, television, or mobile video device. Downloadable content for viewing on a mobile video device also is becoming more widely available.<sup>521</sup> In addition, some companies are using a high-speed Internet connection coupled with a television set-top box that includes an on-screen guide to provide video directly to a television set.

153. Several commenters observe that established models for the distribution of video programming are being challenged by these technological advancements and consumers' ability to receive video programming via alternative means, not just from traditional linear networks.<sup>522</sup> Comcast provides examples of the new models for offering video, such as the video iPod, which, it argues, competes with cable for the time and attention of consumers.<sup>523</sup>

154. **Internet Usage.** Nearly 70 percent of all U. S. households subscribe to an Internet service, and high-speed connections now constitute 60 percent of online subscriptions.<sup>524</sup> In July 2006, 107 million Americans, three out of every five Internet users, viewed video online.<sup>525</sup> In July 2006, about

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<sup>519</sup> See also Comcast Comments at 29; DIRECTV Comments at 12; NCTA Comments at 9-10; Comcast Reply at 6-7, 14-15; NCTA Reply at 2-4.

<sup>520</sup> See Webopedia, *Streaming*, at <http://www.webopedia.com/TERM/s/streaming.html>.

<sup>521</sup> See Comcast Comments at 3; NCTA Comments at 22-26; Comcast Reply at 14-15, 20. See also Section II.F.3.

<sup>522</sup> See Comcast Comments at 1-7, 62; CEA Comments at ii, 5-6; Comcast Reply at 2-4, 6-7; Viodi Reply at 2.

<sup>523</sup> See Comcast Comments at 30, 34, 57-59; Comcast Reply at 20.

<sup>524</sup> Comcast Comments at 30.

<sup>525</sup> *Id.*

60 percent of U.S. Internet users downloaded videos; collectively, they downloaded more than 7 billion videos.<sup>526</sup> Comcast observes that video web sites now draw users in numbers comparable to the subscriber reach of cable and satellite companies.<sup>527</sup>

155. **Available Content on the Web.** YouTube is the country's most used online streaming video web site, with more than 34 million visitors in August 2006.<sup>528</sup> The second most visited video web site in August 2006 was MySpace, which logged more than 17.9 million visitors.<sup>529</sup> YouTube began as a personal video sharing service where users could post videos they created themselves or watch videos posted by others. Purchased by the Internet portal<sup>530</sup> Google in 2006, it now offers mostly user-posted original content and videos or video clips that users have recorded from traditional video media, such as television.<sup>531</sup> In addition, some broadcast networks have entered into agreements to provide their traditional programming content through YouTube's web site.<sup>532</sup> MySpace, like YouTube, also offers original short video content posted by its web site's users.<sup>533</sup> In addition, MySpace has entered into an agreement with Fox to provide advertiser-supported episodes of its prime time shows; both Fox and MySpace are owned by parent company News Corp.<sup>534</sup>

156. Major Internet portals, such as Google, Yahoo, and AOL, continue to offer user-posted content, but are increasingly entering into licensing agreements to offer pre-existing and original video

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<sup>526</sup> FTTH Council Comments at 6 (citing comScore).

<sup>527</sup> Comcast Comments at 30.

<sup>528</sup> YouTube, Inc., at <http://www.youtube.com/t/about> ("YouTube, Inc."); Comcast Comments at 30 n.119 citing Nielsen.Net Ratings). *See also* Comcast Reply at 6; FTTH Council Comments at 6.

<sup>529</sup> MySpace.com, at <http://www.myspace.com/Modules/Common/Pages/AboutUs.aspx> ("MySpace.com"); Comcast Comments at 30 n.119 (citing Nielsen.Net Ratings). MySpace's video services provided 1.4 billion streams or 20.1 percent of all web-based streamed video in August 2006. Comcast Comments at 35; FTTH Council Comments at 6 (citing com.Score).

<sup>530</sup> An "Internet portal," also known as a "web portal," is a web site that acts as a starting point for browsing the web. Portals typically include search engines and large directories of websites. Some popular portals are Yahoo, Google, Excite, Lycos, Netscape, AltaVista, MSN, and AOL.com. There also are many smaller portals, known as "niche portals," for specific interests. These sites include Cnet (for computers and technology), Fool.com (for investors), and Garden.com (for gardeners). *See* TechTerms.org, *Portal*, at <http://www.techterms.org/definition/portal> (visited Feb. 21, 2007).

<sup>531</sup> *See* YouTube, Inc. *See also* Comcast Comments at 3, 34-35; CEA Comments at 6; NCTA Comments at 22; Comcast Reply at 6, 18; Viodi Reply at 2. You Tube was officially launched in December 2005, and in October 2006 was purchased by Google for \$1.65 billion. *See* YouTube, Inc.; CEA Comments at 6; Comcast Comments at 35 n.143; NCTA Comments at 22; Comcast Reply at 18.

<sup>532</sup> Comcast Comments at 34-35. Verizon is partnering with YouTube to bring the web site's videos to Verizon wireless phones, and possibly to television sets as well. Comcast Comments at 28. *See also* Section II.F.3.

<sup>533</sup> *See* MySpace.com. *See also* Comcast Comments at 30 n.119 (citing Nielsen.Net Ratings); CEA Comments at 6.

<sup>534</sup> Comcast Comments at 35. *See also* CEA Comments at 6.

content from traditional video providers.<sup>535</sup> AOL provides both free and paid video programming, including a library of television shows and movies from several major movie studios.<sup>536</sup> Some of the content offered by Google, Yahoo, and AOL is available for streaming, and some content is available for downloading onto the user's computer. In fact, most web-based video providers offer combinations of streaming and downloadable video.

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<sup>535</sup> Comcast Comments at 2, 33-34; Comcast Reply at 15; NCTA Comments at 23. Google Video, for example, allows viewers to search, view, and purchase video content, and allows users to share opinions about video clips. In May 2006, Google Video attracted almost 7 million viewers. Comcast Comments at 33-34. MTV is working with Google to offer its video content on the web. *Id.* at 2. Yahoo continues to be one of the most popular providers of video on the Internet, attracting 16.6 million unique visitors in June 2006. The Yahoo portal includes local news clips from CBS, ABC, and CNN. *Id.* See also FTTH Council Comments at 6.

<sup>536</sup> Comcast Comments at 33-34; NCTA Comments at 25.

157. Other online video providers include Wi-FiTV,<sup>537</sup> BrightCove,<sup>538</sup> Virtual Digital Cable (“VDC”),<sup>539</sup> and LX.TV Lifestyle Television,<sup>540</sup> which mostly provide prepackaged programming offered as “channels” of video to monthly subscribers. As we reported last year, CinemaNow<sup>541</sup> and Movielink<sup>542</sup> continue to offer downloadable video through their web sites.<sup>543</sup> In addition, Microsoft continues to experiment with video service offerings, including movie downloads through its Xbox360.<sup>544</sup> Amazon offers movie downloads through its service called Unbox.<sup>545</sup>

158. Traditional broadcast and nonbroadcast networks continue to experiment with alternate programming content options on their own web sites.<sup>546</sup> After a successful online video streaming experiment during the spring of 2006, ABC relaunched its video streaming service in September 2006,

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<sup>537</sup> Wi-FiTV, Inc., *Wi-Fi TV Corporate*, at <http://www.wi-fitv.com/Corporate.php> (“Wi-Fi TV Inc.”). Wi-FiTV.com offers classic movies for purchase and over 200 live TV channels from around the world. *Id.*; Comcast Comments at 35; Comcast Reply at 16.

<sup>538</sup> Brightcove.com, *Corporate*, at <http://corp.brightcove.com/>. Brightcove.com distributes user-posted videos and videos from traditional cable channels, such as Bravo, Discovery, AMC, Oxygen, and TV Land. *Id.*; Comcast Comments at 36; NCTA Comments at 25.

<sup>539</sup> VDC Corporation, at <http://www.vdc.com>. VDC is an Internet-TV company that offers video programming from channels, including ShopNBC, the Soundtrack Channel, the World Championship Sports Network, and some local television stations. *Id.* See Comcast Comments at 36. See also note 670 *infra* (Program Access Complaint).

<sup>540</sup> LX.TV, at <http://code.tv> and <http://code.tv/#footdata>; NCTA Comments at 25. LX.TV is a broadband television network web site featuring original lifestyle and cultural programming free and on-demand. *Id.*

<sup>541</sup> CinemaNow, Inc., *Company Background*, at <http://www.cinemanow.com/Aboutus-Background.aspx>; Comcast Comments at 48; FTTH Council Comments at 6-7; NCTA Comments at 22-23; Comcast Reply at 17.

<sup>542</sup> Movielink, LLC, *About Us*, at <http://www.movielink.com/store/web/about/about.jsp>; Comcast Comments at 36 n.151, 48; FTTH Council Comments at 6-7; NCTA Comments at 23.

<sup>543</sup> *2005 Report*, 21 FCC Rcd at 2568 ¶ 139.

<sup>544</sup> Microsoft’s Xbox 360 enables users to access a selection of movies and broadcast television programming from various content providers, including CBS, MTV Networks, Paramount Pictures, Turner Broadcasting System Inc., Ultimate Fighting Championship, and Warner Brothers Home Entertainment. Microsoft Corporation, *Microsoft Integrates IPTV Software Platform with Xbox 360* (press release), Jan. 8, 2007, at <http://www.xbox.com/en-US/community/events/ces2007/microsoftintegratesiptvsoftwareplatform.htm>; Microsoft Corporation, *Xbox 360 Unveils First Wave of TV Shows and Movies on Xbox Live* (press release), Nov. 22, 2006, at <http://www.microsoft.com/presspass/press/2006/nov06/11-22LiveTVMoviesPR.msp>; Microsoft Corporation, *Watch Movies and TV on Your Xbox*, at <http://www.xbox.com/en-US/community/news/2006/1106-moviestv.htm>; CEA Comments at 6; DIRECTV Comments at 12. Microsoft is testing “Soapbox on MSN Video,” which allows Internet users to watch and post videos, rate and comment on videos, and share favorite videos with friends through e-mail. Microsoft Corporation, at <http://soapbox.msn.com>. Comcast Comments at 2, 36.

<sup>545</sup> Amazon.com, Inc., *Amazon.com Unbox Video Downloads*, at [http://www.amazon.com/gp/video/help/faq.html/ref=amb\\_link\\_3187542\\_2/102-9771533-6006548](http://www.amazon.com/gp/video/help/faq.html/ref=amb_link_3187542_2/102-9771533-6006548); FTTH Council Comments at 6-7; Comcast Comments at 2, 47-49; NCTA Comments at 23; Comcast Reply at 19 n.80.

<sup>546</sup> See also Comcast Comments at 3-5; CEA Comments at 5-6.

offering seven of its most popular shows for streaming online.<sup>547</sup> CBS offers three web-exclusive series, news programming, and full episodes of many of its hit prime time shows on its web site.<sup>548</sup> NBC is introducing a video service that, in addition to offering its own content, will license the content of other producers. It also has partnered with Intel so that the online service will stream programming on-demand at a higher resolution than other Internet video providers.<sup>549</sup> In addition, NBC Universal has built a digital studio dedicated to producing original web content, and it has four web networks, *gettrio.com*, *brilliantbutcancelled.com*, *outzonetv.com*, and *televisionwithoutpity.com*.<sup>550</sup> As we reported in the past, some broadcast networks are offering advanced viewing of their programming on the web prior to distribution over-the-air television.<sup>551</sup> For example, Fox debuted the fourth season opening episode of *The O.C.* on its owned-and-operated stations' web sites and on MySpace.com a week before premiering the episode on broadcast television.<sup>552</sup> PBS now offers many episodes of *Frontline*, *NOVA*, and segments

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<sup>547</sup> ABC, Inc., at <http://abc.go.com/fsp/index.html>; Disney, *Disney-ABC Television Group's Emmy-Winning ABC.com Brings Back Enhanced, Ad-Supported Broadband Player This Month* (press release), Sept. 13, 2006, at [http://corporate.disney.go.com/news/corporate/2006/2006\\_0913\\_abcbroadcast.html](http://corporate.disney.go.com/news/corporate/2006/2006_0913_abcbroadcast.html); Comcast Comments at 40. See also CEA Comments at 6; NCTA Comments at 19.

<sup>548</sup> CBS.com, at <http://www.cbs.com>; CBS Corporation, *Sling Media and CBS Announce Beta Test of New Delivery System for Video* (press release), January 10, 2007; Comcast Comments at 40. See also CBS Corporation, *CBS Brand Channel Launches Today on YouTube* (press release), Oct. 18, 2006; CBS Corporation, *Yahoo! News and CBS Television Stations Form Exclusive Partnership to Deliver Local News Video* (press release), Oct. 16, 2006; CBS Corporation, *CBS and YouTube Strike Strategic Content and Advertising Partnership* (press release), Oct. 9, 2006; CEA Comments at 6; NCTA Comments at 19.

<sup>549</sup> NBC Universal, Inc., at <http://www.nbc.com/Video/>; Intel Corp., *NBC Universal and Intel to Deliver Series Premieres in Intel Viiv and Intel Centrino Platforms* (press release), Sept. 28, 2006; Comcast Comments at 2, 40; DIRECTV Comments at 12; NCTA Comments at 18-19.

<sup>550</sup> Comcast Comments at 32; NBC Universal Inc., *Trio Pop Culture TV*, at <http://www.gettrio.com>; NBC Universal Inc., *Brilliant But Cancelled.com*, at <http://www.brilliantbutcancelled.com>; NBC Universal Inc., *OutZone TV.com*, at <http://outzonetv.com/>; *Television Without Pity*, at <http://www.televisionwithoutpity.com/> (visited Mar. 22, 2007); Maria Aspan, *A Division of NBC Buys Out One of Its Harshest Online Critics*, NEW YORK TIMES, Mar. 19, 2007, at C4.

<sup>551</sup> *2004 Report*, 20 FCC Rcd at 2818-9 ¶ 116.

<sup>552</sup> Comcast Comments at 41. See also Fox, at <http://www.fox.com>; MySpace.com, *The OC*, at <http://http://creative.myspace.com/VOD/oc/index.html>; CEA Comments at 6; NCTA Comments at 19. Fox has entered into an agreement with Apple to offer episodes of its programming through Apple's iTunes service. See Apple, Inc., *Hit Programming from Fox Entertainment Group's Fox, FX, Speed, Fuel, and 20<sup>th</sup> Century Fox Television Library Now Available at iTunes* (press release), May 9, 2006, at <http://www.apple.com/pr/library/2006/may/09fox.html>; NCTA Comments at 24.

of *The News Hour* for free online,<sup>553</sup> and *Nature* is available for free in podcast format.<sup>554</sup> Furthermore, ABC, CBS, and NBC, sell episodes of their TV programs for download on Apple's iTunes service.<sup>555</sup>

159. Among the many nonbroadcast networks that provide video content directly on their web sites are CSTV Networks,<sup>556</sup> Nickelodeon,<sup>557</sup> Comedy Central,<sup>558</sup> MTV,<sup>559</sup> TV Land,<sup>560</sup> the Food Network,<sup>561</sup> CMT,<sup>562</sup> Discovery,<sup>563</sup> and the Weather Channel.<sup>564</sup> Starz Entertainment Group operates a

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<sup>553</sup> Comcast Comments at 41. See also Public Broadcasting Service, at <http://www.pbs.org/>.

<sup>554</sup> Public Broadcasting Service, *Available Podcasts*, at <http://www.pbs.org/podcasts/>; Comcast Comments at 41. Podcast refers to the application that enables portable video players, especially the Apple video iPod. See Apple, Inc., *iPod + iTunes*, at <http://www.apple.com/itunes/>; Comcast Comments at 14, 30 n.120, 42, 49 n.200, 54, 59; NCTA Comments at 19, 23-24; Comcast Reply at 17 n.69, 19.

<sup>555</sup> Comcast Comments at 30 n.120; 42,54,58; NCTA Comments at 19, 23-24; CEA Comments at 5-6; NCTA Comments at 23-24. See also Apple Inc., *Stay Tuned to iTunes*, at <http://www.apple.com/itunes/store/tvshows.html> (visited Mar. 22, 2007).

<sup>556</sup> CSTV Networks, Inc., *CSTV*, at <http://www.cstv.com>. CSTV provides hundreds of hours of streaming video directly from its web site. *Id.*; Comcast Comments at 31.

<sup>557</sup> Viacom International, Inc., *TurboNick*, at <http://www.nick.com/turbonick/index.jhtml>. Nickelodeon recently upgraded its broadband video platform, "TurboNick," which allows users to create their own cartoons, create and trade playlists, and send videos through e-mail links. *Id.*; Comcast Comments at 31.

<sup>558</sup> Comedy Central, *Show*, at <http://www.comedycentral.com/press/series/comedycentral-com.jhtml>. Comedy Central is developing twenty series especially for broadband, with another 40 under consideration. *Id.*; Comcast Comments at 31. See also Comedy Central, *Comedy Central.com to Premiere Two New Broadband Series* (press release), Oct. 25, 2006, at [http://www.comedycentral.com/press/press\\_releases/2006/102506\\_two\\_new\\_bband\\_series.jhtml](http://www.comedycentral.com/press/press_releases/2006/102506_two_new_bband_series.jhtml).

<sup>559</sup> MTV Networks, at <http://www.mtv.com/overdrive/>?. MTV's broadband site, "Overdrive," continues to offer video and experiment with providing programming that complements the programs being aired on its linear channel. *Id.*; Comcast Comments at 31. MTV Networks has launched a variety of exclusive Internet video programs through its broadband portals Overdrive, Uber, TurboNick, Vspot, and Loaded. Comcast Comments at 32.

<sup>560</sup> Viacom International, Inc., *TV Land*, at <http://www.tvland.com/tvlhome.jhtml> and <http://www.tvland.com/video>. TV Land recently launched the TV Land video player that features full-length episodes of choice hit shows, including Star Trek, as well as sneak peaks of originals. *Id.*; Comcast Comments at 31.

<sup>561</sup> Scripps Networks, Inc., *Food Network Video Center*, at [http://www.foodnetwork.com/food/video\\_guide/](http://www.foodnetwork.com/food/video_guide/). The Food Network is providing its second Internet series, *Dave Does*, after its first Internet offering *Eat This*, logged 1 million page views in its first two weeks. *Id.*; Comcast Comments at 32.

<sup>562</sup> Country Music Television, Inc., *CMT Loaded*, at <http://www.cmt.com/loaded/player.jhtml?launchedFrom=loaded>. CMT launched "CMT Loaded," an online portal offering more than 500 clips of performances, interviews, and original video. The CMT video library is projected to total 300 clips per month. *Id.*; Comcast Comments at 32.

<sup>563</sup> Discovery Communications, Inc., *Discovery Communications Expands Content Offering on Google Earth* (press release), Sept. 18, 2006. Discovery Communications added a webcast feature to its online news service that offers news clips about developments ranging from scientific discoveries to health information. *Id.*, Comcast Comments at 32.

video download service called Vongo.<sup>565</sup> Newspapers also are increasingly adding video and other multimedia content to their web sites. As a result of these new sources of video programming, the National Academy of Television Arts and Sciences has created an Emmy award category to honor “original news and documentary created specifically for non-traditional viewing platforms.”<sup>566</sup>

160. Internet video distribution also has become a means by which some new programming networks are developing audience interest in their programming. VoyTV and BlueHighwaysTV are among those using the Internet to distribute video absent an agreement for distribution as a linear network with one of the major MVPDs.<sup>567</sup>

161. Cable operators also are starting to experiment with online video offerings. Comcast launched a new network, called FearNet, using only the Internet and video-on-demand.<sup>568</sup> In addition, Comcast uses its web portal, comcast.net, to provide subscribers with a variety of video content.<sup>569</sup> For example, Comcast has entered into an agreement with Jump TV to allow Comcast’s Internet subscribers to view 225 TV channels from around the world.<sup>570</sup> In addition, Comcast recently launched Ziddio, a web site that allows users to post original video content. Video clips that are highly rated by other users are then offered on Comcast’s cable video-on-demand service.<sup>571</sup>

162. **Downloadable Content for Portable Devices.** Downloading video from the Internet to portable video players, especially the Apple video iPod, has gained popularity in the past year and demonstrates consumer demand for the ability to watch video content on a portable device.<sup>572</sup> Traditional and new content producers alike are offering their programming for download onto mobile devices. In

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<sup>564</sup> The Weather Channel Interactive, Inc., *Video-on-Demand*, [http://www.weather.com/multimedia/videoplayer.html?clip=1073&collection=topstory&nav=84&from=gn\\_six\\_welcome](http://www.weather.com/multimedia/videoplayer.html?clip=1073&collection=topstory&nav=84&from=gn_six_welcome). The Weather Channel has introduced a new broadband site, called *One Degree*, that features videos dedicated to the subject of global warming. The Weather Channel Interactive, Inc., *One Degree*, at <http://climate.weather.com/?from=footer>; Comcast Comments at 32.

<sup>565</sup> Vongo is an Internet video download service that provides a selection of titles on demand to personal computers or portable media devices. Starz Entertainment, LLC, *Our Channels*, at [http://www.starz.com/appmanager/seg/s?\\_nfpb=true&\\_pageLabel=our\\_channels](http://www.starz.com/appmanager/seg/s?_nfpb=true&_pageLabel=our_channels); Comcast Comments at 48; DIRECTV Comments at 12; NCTA Comments at 24.

<sup>566</sup> National Academy of Television Arts & Sciences, *Nominees for the First Emmy Award For Internet, Cellphones, and iPods Announced* (press release), April 10, 2006; Comcast Comments at 58.

<sup>567</sup> Voy, LLC., *Voy TV*, at <http://www.voytv.com/#pagekeep::p,hot::b,HotContext::g,1>; Network Creative Group, LLC, *BlueHighways.com: About*, at <http://www.bluehighwaystv.com/pgabout.cfm>; Comcast Comments at 33.

<sup>568</sup> *Id.* at 33.

<sup>569</sup> *Id.* at 70-71.

<sup>570</sup> *Id.* at 70.

<sup>571</sup> *Id.* at 71; Comcast Corp., *Ziddio*, at <http://www.ziddio.com/ui.zd?dispatch=homepage>; FTTH Council Comments at 6-7.

<sup>572</sup> Apple, Inc., *iPod + iTunes*, at <http://www.apple.com/itunes/>; Comcast Comments at 14, 30 n.120, 42, 49 n.200, 54, 58. DIRECTV Comments at 12; NCTA Comments at 19, 23-24; Comcast Reply at 17 n.69, 19.

addition to the increasing popularity of Apple's iTunes download service and its iPod video player, other portable media devices, such as EchoStar's PocketDish, are becoming popular.<sup>573</sup>

163. **Internet Video for Viewing on a Television Set.** Several video services continue to utilize a set-top box that accesses the Internet to receive video for viewing on a television set. As we reported last year, Akimbo is one such Internet video-on-demand service that continues to attract investment. It delivers more than 8,000 on-demand programs, including travel shows, documentaries, music videos, full-length films, sporting events, television series, and HD content from the Internet to a set top box connected to its subscribers' television sets.<sup>574</sup> Apple currently offers a wireless device that transmits movies from laptops to television set-top boxes for viewing on a television set.<sup>575</sup> In addition, TiVo offers a TiVo Cast, a free service that allows its subscribers to watch Internet video clips through a broadband-connected TiVo device attached directly to their televisions.<sup>576</sup>

## 2. Home Video Sales and Rentals

164. In last year's *Report*, we observed that VOD services provided by cable, DBS, and Internet providers have emerged as a competitive alternative to home video.<sup>577</sup> Home video, such as Netflix delivered to the home and retail-based options, offers some level of competition to broadcast television, cable television, DBS, and other MVPDs because it offers services similar to premium and pay-per-view offered by MVPDs.<sup>578</sup>

165. For the first time in 2006, the number of DVD households surpassed the number of VHS households. Nielsen research shows that 81.2 percent of households own a DVD player, compared to 79.2 percent that own a VCR.<sup>579</sup> Consumers purchased 33 million DVD players in the last year, contributing to a 6 percent increase in the rate of DVD penetration in the U.S.<sup>580</sup> DVD rentals increased by \$1 billion to \$7.5 billion over the last year.<sup>581</sup> One study indicates that DVD households rent DVDs an

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<sup>573</sup> "PocketDish" is a mobile video device that EchoStar offers as a companion to its DBS service. NCTA Comments at 23, 26. *See also* Section II.B *supra*.

<sup>574</sup> Akimbo Systems, *About*, at <http://www.akimbo.com/about.html>; Comcast Comments at 36. *See also* Viodi Reply at 2.

<sup>575</sup> Apple, Inc., *AppleTV*, <http://www.apple.com/appletv/>; Comcast Comments at 2, 5, 48-49.

<sup>576</sup> TiVo, Inc., *TiVoCast*, at <https://www3.tivo.com/tivo-tco/cds/index.do>; Comcast Comments at 42 n 174, 58; FTTH Council Comments at 6-7.

<sup>577</sup> *2005 Report*, 21 FCC Rcd at 2569 ¶ 140.

<sup>578</sup> *2005 Report*, 21 FCC Rcd at 2569 ¶ 140. *See also* *2003 Report*, 19 FCC Rcd at 1675 ¶ 108.

<sup>579</sup> Nielsen Media Research, at <http://www.nielsenmedia.com/nc/portal/site/Public/menuitem.55dc65b4a7d5adff3f65936147a062a0/?vgnnextoid=4673a1bcb279f010VgnVCM100000ac0a260aRCRD> (visited Jan. 24, 2007).

<sup>580</sup> Mike Snider, *Home Video Spending Records Another Decline*, USA TODAY, Jan. 8 2007 ("Snider Home Video"), at D-1.

<sup>581</sup> *Id.*

average of twice per month, while VCR households rent only once per month.<sup>582</sup> Further, DVD movie sales rose, but at a slower pace, increasing by \$300 million from \$16.3 to \$16.6 billion in 2006.<sup>583</sup> In terms of unit sales, DVD sales grew only 4 percent in the first half of 2006, half the growth rate experienced in the first half of 2005.<sup>584</sup> Consumer DVD sales and rentals have yet to compensate for lost VHS sales and rentals. Since 2004, total home video revenues decreased by \$300 million from \$24.5 to \$24.2 billion.<sup>585</sup> Whereas VHS spending topped \$3 billion in 2004, last year's VHS spending accounted for only \$100 million.<sup>586</sup> One factor contributing to the increase in DVD sales is the increased availability of previously broadcast television programs.<sup>587</sup> Television shows on DVD accounted for 9 percent of home video sales last year, an increase of 2 percent over the previous year.<sup>588</sup>

166. Consumers can now choose from more than 51,000 titles on DVD, compared to 47,000 a year ago.<sup>589</sup> Besides traditional video retailers, consumers are able to purchase or rent home video products through an increasing number of outlets. DVDs and videocassettes can be purchased at mass market chains (e.g., Target, Wal-Mart), specialty retailers (e.g., Bed Bath & Beyond, Starbucks), and over the Internet from online retailers (e.g., Amazon).<sup>590</sup> Rental options also continue to expand. For example, Redbox now operates automated rental kiosks in grocery stores and at McDonalds restaurants.<sup>591</sup> Netflix maintains an online distribution with 6 million subscribers that accounted for 12 percent of the DVD rental market and \$1 billion in revenue in 2006.<sup>592</sup> Netflix also introduced a new online service to rent videos via streaming technology, as opposed to purchasing and download technology used by competitors (e.g., iTunes, Vongo).<sup>593</sup> As a result of these other sources of home videos, Blockbuster and other major video retailers now compete on all levels by offering sales, rentals, and online services.<sup>594</sup>

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<sup>582</sup> Nielsen Media Research, at <http://www.nielsenmedia.com/nc/portal/site/Public/menuitem.55dc65b4a7d5adff3f65936147a062a0/?vgnnextoid=4673a1bcb279f010VgnVCM100000ac0a260aRCRD> (visited Jan. 24, 2007).

<sup>583</sup> Snider Home Video at D1.

<sup>584</sup> NPD Group, Inc., *The NPD Group: TV-DVDs Soften Video Sales Decline* (press release), Oct. 24, 2006.

<sup>585</sup> Snider Home Video at D1.

<sup>586</sup> *Id.*

<sup>587</sup> Comcast Comments at 46.

<sup>588</sup> NPD Group, Inc., at [http://www.npd.com/press/releases/press\\_061024.html](http://www.npd.com/press/releases/press_061024.html) (visited Jan. 24, 2007).

<sup>589</sup> The Digital Entertainment Group, *Study Shows DVD Has Moved beyond the Living Room into All Aspects of Consumers' Lives; a Variety of Players Are Available to Fuel This Trend for the Holidays* (press release), Nov. 17, 2005. See also 2005 Report, FCC 21 Red at 2569 ¶ 141.

<sup>590</sup> See Comcast Comments at 47.

<sup>591</sup> *Id.*

<sup>592</sup> Miguel Helft, *The Shifting Business of Renting Movies, By the Disc or the Click*, NEW YORK TIMES, Jan. 16, 2007, at C-1.

<sup>593</sup> Michael Liedtke, *Netflix Offers Instant Access*, USA TODAY, Jan. 16, 2007, at B-5.

<sup>594</sup> Blockbuster, at <http://www.blockbuster.com> (visited Jan. 29, 2007).

167. The introduction of Sony's Blu-ray and Microsoft's HD DVD discs are bringing a new generation of pre-recorded HD content into the home.<sup>595</sup> These formats are not compatible with each other. Sony's Blu-ray format, developed for use in the Playstation 3, is supported by Disney and 20<sup>th</sup> Century Fox, among others. HD DVD was developed for use in the Microsoft Xbox 360, and is supported, among others, by Toshiba and Universal.<sup>596</sup> To address the noncompatibility issue, Warner and LG Electronics have introduced a combination Blu-ray/HD disc and combination Blu-ray/HD player, respectively.<sup>597</sup> Termed "Total HD," the new dual format has attracted support from Amazon, Cinram, and Warner-owned subsidiaries, such as HBO and New Line.<sup>598</sup> One study indicates that consumers are expected to purchase 9 million high-definition DVD devices by the end of 2007.<sup>599</sup>

### III. MARKET STRUCTURE AND CONDITIONS AFFECTING COMPETITION

#### A. Market Structure and Ownership Issues

168. The video programming marketplace is comprised of a retail market for the distribution of multichannel video programming to consumers, and a program supply market for the purchase of video programming by MVPDs.<sup>600</sup> In this section, we first review changes in the marketplace for the distribution of video programming, including changes in the level of competition in that market between June 2005 and June 2006. We then review the marketplace for the purchase of video programming by MVPDs, examining the effects that changes in concentration among MVPDs at the national and regional levels have had on this marketplace in the last year.

##### 1. Competitive Issues in the Retail Market for the Distribution of Video Programming to Consumers

169. In the past year, incumbent cable operators' share of all MVPD subscribers continued to decline. As of June 30, 2006, cable operators served 68.2 percent of MVPD subscribers, compared to 69.4 percent of MVPD subscribers a year earlier. DBS, the major wireless MVPD technology that is available to subscribers nationwide, saw its share of MVPD subscribers increase between June 2005 and June 2006, from 27.7 percent of the market to 29.2 percent. Relatively few consumers have a second wireline alternative, such as an overbuild cable system, as indicated by the small number of subscribers to BSPs and LECs.<sup>601</sup> Several other MVPD technologies, such as private cable systems and wireless cable

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<sup>595</sup> CEA Comments at ii, 13.

<sup>596</sup> Video Business Online, at <http://www.videobusiness.com/index.asp?layout=articlePrint&articleID=CA6406192> (visited Jan. 24, 2007).

<sup>597</sup> *Id.*

<sup>598</sup> *Id.*

<sup>599</sup> *Id.*

<sup>600</sup> The market descriptions included in this *Report* are tentative in nature, and are subject to potential revisions by the Commission in future proceedings, merger reviews, or reports. Any individual proceeding in which the Commission defines relevant product and geographic markets, such as an application for approval of a license transfer, may present facts pointing to narrower or broader markets than any used, suggested, or implied in this *Report*.

<sup>601</sup> See ¶¶ 101-102, 132-133 *supra*. See also Appendix B, Table B-1.

systems, offer consumers alternatives to incumbent cable services, but only in limited areas. Incumbent cable and DBS operators provide MVPD service to over 97 percent of all MVPD households. The combined share of the other MVPD alternatives provide MVPD service to less than 3 percent of MVPD households.

170. In the *Notice*, we requested comment on the impact of the regulatory environment and barriers to entry on competition in the MVPD marketplace, including the impact of the local franchise process on new providers' entry into local markets.<sup>602</sup> In comments submitted in response to the *Notice*, franchising authorities argued that they have promoted competition and that their build-out requirements balance the economic interests of the operator with the interests of the community.<sup>603</sup> Cable operators argued that franchise requirements have not impeded LEC entry into the video marketplace and maintained that a level playing field must exist for all providers and across all services.<sup>604</sup> LMC/MACTA contended that local government is the only entity that can adequately monitor and ensure rapid, safe, and efficient deployment of cable services when they are installed on a community level utilizing local rights-of-way.<sup>605</sup> Because citizens' interest in PEG programming varies from place to place and over time, the Maryland Counties state, it makes sense for local communities to establish PEG requirements through periodic renegotiation of franchise agreements.<sup>606</sup> They urge the Commission not to infringe upon local communities' rights to determine, and require cable operators to meet, their needs and interests, including the allocation of resources for PEG channels as well as new ways to deliver PEG programming, such as "PEG-on-demand."<sup>607</sup> NYC echoes the sentiments observing that because local needs and conditions vary widely across the country, local governments are best equipped to handle such tasks as negotiating for the allocation of cable capacity for PEG channels and for the provision of institutional networks.<sup>608</sup>

171. During the pendency of this proceeding, the Commission adopted rules to implement Section 621(a)(1) of the Communications Act, which prohibits local franchising authorities ("LFAs") from unreasonably refusing to award competitive franchises for the provision of cable services and also

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<sup>602</sup> *Notice*, 21 FCC Rcd at 12233-34 ¶¶ 9-12.

<sup>603</sup> NATOA Comments at 2-3 and Reply at 2-4. *See also* Burnsville Comments at 1; St. Croix Comments at 1; Champaign-Urbana Comments at 1; Champaign Comments at 1; Fort Worth Comments at 1-2; Green Spring Comments at 1; Jenkins Comments at 1; Minneapolis Comments at 1; Wheaton Comments at 1; Forest Park Comments at 1; Elk Grove Comments at 1; Evanston Comments at 1; GMTC/RCC Comments at 1; Hoffman Estates Comments at 1; Lake Minnetonka Comments at 1; Mt. Hood Comments at 1; Northbrook Comments at 1; NDC4 Comments at 1; NSCC Comments at 1; Queen Anne's Comments at 1; SMCTC Comments at 1; Skokie Comments at 1; West Central Comments at 1; Sycamore Reply at 1 (supporting NATOA's comments). *See also* Maryland Counties Comments at 1, 12-13, 14-16; Naperville Comments at 2-4; GMTC/RCC Comments at 2; LMC/MACTA Comments at 3-4, 16-17; Consumers Union Reply at 1-2; NYC Comments at 1-3.

<sup>604</sup> Comcast Comments at 22-27. *See also* NCTA Comments at 15-17; Cox Reply at 8-9; IMCC Reply at 5.

<sup>605</sup> LMC/MACTA Comments at 3-4.

<sup>606</sup> Maryland Counties Comments at 17-20.

<sup>607</sup> *Id.* at 20-21.

<sup>608</sup> NYC Comments at 3-4. An institutional network (also called an I-Net) is defined as a communication network that is constructed or operated by the cable operator and that is generally available only to subscribers who are not residential customers. *See* 47 U.S.C. § 531(f).

issued a Further Notice of Proposed Rulemaking seeking comment on certain related issues (“*Franchise Order and FNPRM*”).<sup>609</sup> The *Franchise Order and FNPRM* addresses several ways by which local franchising authorities unreasonably refuse to award competitive franchises. These include drawn-out local negotiations with no time limits; unreasonable build-out requirements; unreasonable requests for “in-kind” payments that attempt to subvert the 5 percent cap on franchise fees; and unreasonable demands with respect to PEG Programming.<sup>610</sup>

172. The Commission found that the current operation of the local franchising process in many jurisdictions constitutes an unreasonable barrier to entry that impedes the achievement of the interrelated federal goals of enhanced cable competition and accelerated broadband deployment.<sup>611</sup> To eliminate the unreasonable barriers to entry into the cable market, and to encourage investment in broadband facilities, the Commission found that an LFA’s failure to issue a decision on a competitive application within specified time frames constitutes an unreasonable refusal to award a competitive franchise within the meaning of Section 621(a)(1). The new rules generally require an LFA to act on a competitive franchisee’s application within 90 days if the applicant has existing authority to access public rights-of-way in the area to be served, or 180 days otherwise.<sup>612</sup> The Commission also recognized that a new cable entrant cannot reasonably expect to capture more than a fraction of the total market and that build-out requirements impose significant financial risks on competitive applicants, who must incur substantial costs to deploy facilities within the franchise area. Accordingly, the Commission found that it is unlawful for LFAs to refuse to grant a competitive franchise on the basis of unreasonable build-out mandates.<sup>613</sup> In addition, the Commission found that any refusal to award a competitive franchise because of an applicant’s refusal to accede to LFA demands to include certain specified costs, fees, and other compensation in the calculation of the statutory 5 percent cap on franchise fees, would constitute an unreasonable refusal to award a competitive franchise. The Commission specifically addressed the franchise fee revenue base, limitations on charges incidental to the award or enforcement of a franchise, the proper classification of in-kind payments unrelated to the provision of cable service; and whether contributions in support of PEG services and equipment should be considered within the franchise fee calculation.<sup>614</sup> The Commission concluded that LFAs may not make unreasonable demands on competitive applicants for PEG channels and institutional networks (“I-Nets”) and that conditioning the award of a competitive franchise on applicants agreeing to such unreasonable demands would constitute an unreasonable refusal to award a franchise. We also found that it is unreasonable for an LFA to impose

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<sup>609</sup> *Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984 as amended by the Cable Television Consumer Protection and Competition Act of 1992*, Report & Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 5101 (2007) (“*Franchise Order and FNPRM*”).

<sup>610</sup> *Franchise Order and FNPRM*, 22 FCC Rcd at 5134-54 ¶¶ 66-120.

<sup>611</sup> *Id.* at 5102 ¶ 1.

<sup>612</sup> *Id.* at 5136-7 ¶ 71, Appendix B; Section 76.41(d).

<sup>613</sup> *Id.* at 5143-4 ¶¶ 88-90. Some other practices that the Commission deemed likely to be unreasonable include: requiring the new entrant to build out and provide service to buildings or developments to which the new entrant cannot obtain access on reasonable terms; requiring the new entrant to build out to certain areas or customers that the entrant cannot reach using standard technical solutions; and requiring the new entrant to build out and provide service to areas where it cannot obtain reasonable access to and use of the public rights of way. *Id.*

<sup>614</sup> *Id.* at 5144-51 ¶¶ 94-109.

on a new entrant more burdensome PEG carriage obligations than it has imposed upon the incumbent cable operator.<sup>615</sup> The Commission preempted local laws, regulations, and requirements, including level-playing-field provisions, to the extent they permit LFAs to impose greater restrictions on market entry than the rules adopted in the *Franchise Order and FNPRM*.<sup>616</sup> The Commission also sought comment on how the findings in the *Franchise Order and FNPRM* should affect existing franchisees. In addition, the Commission sought comment on local consumer protection and customer service standards as applied to new entrants.<sup>617</sup>

173. In response to the Commission's *Franchise Order and FNPRM*, Maryland Counties in this docket express disappointment and argue that the Commission has disregarded the efforts of local governments in furthering competition.<sup>618</sup> In contrast, AT&T commends the Commission for its recognition that the legacy franchising process has deterred competitive entry and for its effort to redress the obstacles that have impeded the development of competitive alternatives and the deployment of broadband infrastructure.<sup>619</sup>

174. In response to the *Notice*, commenters also assert that other factors also inhibit entry and competition. For example, AT&T and APPA state that incumbent cable operators continue to preclude new entrants from acquiring valuable programming, especially regional sports, through use of exclusive contracts and the terrestrial exception to the program access rules which allows vertically integrated MVPDs to restrict access to their affiliated programming when it is distributed to cable headends by means other than satellite transmissions.<sup>620</sup> BSPA states that its members are dependent on program suppliers that are either partially or fully owned by the incumbent cable operators and that such suppliers have incentives to discriminate against BSPs and other MVPD entrants.<sup>621</sup> Noting that the exclusivity prohibition in the Commission's program access rules will expire in October 2007 unless it is renewed, APPA urges the Commission to take an active role in ensuring that electric utilities are able to compete vigorously against incumbent operators.<sup>622</sup> USTelecom contends that the sunset of the program access

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<sup>615</sup> *Id.* at 5103-4, 5151-4 ¶¶ 5, 110-120.

<sup>616</sup> *Id.* The Commission found the record regarding state franchising laws insufficient to make determinations regarding those laws, and therefore did not address state laws or state-level franchising decisions. *Id.* at n.2.

<sup>617</sup> *Id.* The *Franchise Order and FNPRM* have been challenged by local government groups. See *Alliance for Community Media v. FCC*, No. 07-3391 (6th Cir. filed April 3, 2007); *GMTC v. FCC*, No. 07-9518 (10th Cir. filed April 3, 2007); *Larchmont v. FCC*, No. 07-1350-ag (2d Cir. filed April 3, 2007); *National Association of Counties v. FCC*, No. 07-1985 (3d Cir. filed April 3, 2007); *National Association of Telecommunications Officers and Advisors v. FCC*, No. 07-1270 (4th Cir. filed April 3, 2007); *Tampa v. FCC*, No. 07-11464-D (11th Cir. filed April 3, 2007); The challenges were consolidated in the 6th Circuit as *Alliance for Community Media, et al. v. FCC*, No. 07-3391 (6th Cir. filed April 3, 2007).

<sup>618</sup> Maryland Counties Reply at 1. See also Burnsville Reply at 5.

<sup>619</sup> AT&T Reply at 6. See also TDS Reply at 1-2.

<sup>620</sup> AT&T Comments at 14-17. See also APPA Reply at 7-8; AT&T Reply at 7; IMCC Reply at 6; OPASTCO Reply at 5-8; Viоди Reply at 2-7.

<sup>621</sup> BSPA Comments at 11-14.

<sup>622</sup> APPA Reply at 11. See also 47 C.F.R. §§ 76.1000-76.1004. On February 20, 2007, the Commission issued a Notice requesting comment on the sunset of the exclusive contracts for satellite cable programming and satellite (continued....)

rules would cripple the prospect of real competition in the video industry.<sup>623</sup> APPA cites barriers to competition that include exclusive agreements for regional sports programming and the “terrestrial loophole” in Section 628 of the Act, which allows vertically integrated MVPDs to restrict access to their affiliated programming when distributed to cable headends by other than satellite transmissions.<sup>624</sup>

175. BSPA also states that access to MDUs is often denied through long-term exclusive contracts.<sup>625</sup> The FTTH Council maintains that many MDUs have exclusive arrangements that were entered into before wireline competition was available; it urges the Commission to recognize that deployments of advanced fiber networks to tenants are important to competition in the MVPD marketplace.<sup>626</sup> SureWest states that many MDUs already have copper or fiber voice facilities that could provide MVPD service but that exclusive access contracts for MVPD service prevent competition.<sup>627</sup> Verizon states that the impact of exclusive access agreements is large because 30 to 35 percent of the population reside in MDUs.<sup>628</sup> On March 22, 2007, the Commission initiated a rulemaking to evaluate access to MDUs for video providers.<sup>629</sup> According to IMCC, the most significant obstacles to PCOs’ competitive entry are state and local mandatory access laws, MDU managers’ inheritance of perpetual service agreements from a pre-competitive era, and cable incumbents’ refusal to cooperate in applying the Commission’s inside wiring rules.<sup>630</sup>

176. USTelecom argues that the Commission should ensure that technical standards do not disadvantage new entrants using new technologies to provide MVPD service.<sup>631</sup> Verizon also requests that the Commission make sure that any technical standards are technology neutral and do not favor incumbents over new entrants using different technologies.<sup>632</sup>

## 2. Competitive Issues in the Program Supply Market

177. The market for buying and selling video programming tends to be regional or national because programmers seek to reach a much broader audience than that represented by a local franchise

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broadcast programming between vertically integrated programming vendors and cable operators. *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in Video Programming Distribution: Section 628(c)(5) of the Communications Act: Sunset of Exclusive Contract Prohibition*, Notice of Proposed Rulemaking, 22 FCC Rcd 4252 (2007).

<sup>623</sup> USTelecom Comments at 4-5. *See also* Verizon Comments at 29-30.

<sup>624</sup> APPA Reply at 7. *See also* 1997 Report 13 FCC Rcd at 24380 ¶ 171.

<sup>625</sup> BSPA Comments at 15-17. *See also* USTelecom Comments at 16-19; Verizon Comments at 24-28. *See also* Section III.C.2. *infra*.

<sup>626</sup> FTTH Council Comments at 22-23.

<sup>627</sup> SureWest Comments at 2-7.

<sup>628</sup> Verizon Comments at 26-27 (citing Robert Curry, Vice Chairman, RCN Corporation, Prepared Statement Before the Senate Subcommittee on antitrust, Business Rights, and Competition, Committee on the Judiciary, *Cable and Video: Competitive Choices*, 107<sup>th</sup> Cong., S. Hrg. 107-248, 2001 C.R. Vol. 147 at D315, Apr. 4, 2001).

<sup>629</sup> *Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments*, 22 FCC Rcd 5935 (2007).

<sup>630</sup> IMCC Reply Comments at 3.

<sup>631</sup> USTelecom Comments at 22.

<sup>632</sup> Verizon Comments at 31-32.

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 Network).

178. Cable and DBS operators are the primary purchasers of multichannel video programming targeted to a national audience. As shown in Table 11, in 2006, the four MVPDs with the largest subscribership served approximately 63 percent of all MVPD subscribers,<sup>633</sup> a figure unchanged from 2005.<sup>634</sup> The share of subscribers served by the top 10 MVPDs decreased slightly from approximately 88 percent in 2005 to 87 percent in 2006.<sup>635</sup>

**TABLE 11: MVPD Competition and Concentration** <sup>636</sup>

<b>Percentage of MVPD Subscribers Served by Technology</b>		
	<b>2005</b>	<b>2006</b>
<b>Cable</b>	69.4	68.2
<b>DBS</b>	27.7	29.2
<b>Other</b>	2.9	2.6
<b>Percentage of MVPD Subscribers Served by Largest Providers</b>		
	<b>2005</b>	<b>2006</b>
<b>Top 4</b>	63	63
<b>Top 10</b>	88	87
<b>Top 25</b>	94	93

179. To compare market concentration for the purchase of programming over a period of time, we have traditionally used the Herfindahl-Hirschman Index (“HHI”) to measure horizontal

<sup>633</sup> See Appendix B, Table B-4. Reported statistics for 2005 and 2006 are based on June data. They do not reflect the acquisition of Adelphia cable systems by Comcast and Time Warner, which occurred in July 2006.

<sup>634</sup> *Id.*

<sup>635</sup> *Id.* See also Appendix B, Table B-3; *2005 Report*, 21 FCC Rcd at 2620, Appendix B, Table B-3.

<sup>636</sup> Data in Table 11 are based on June 2005 and June 2006 data. Subsequently, Adelphia’s cable systems were acquired by Comcast and Time Warner. See *Applications for Consent to the Assignment and/or Transfer of Control of Licenses from Adelphia Communications Corporation to Time Warner Cable Inc., and from Adelphia Communications Corporation to Comcast Corporation*, 21 FCC Rcd 8203 (2006) (“*Adelphia Order*”). In this *Report*, we do not double-count subscribers and, if a cable system is owned by more than one MSO, its subscribers are assigned to the MSO with the largest ownership stake. Using this methodology, following the Adelphia transactions, Time Warner became the third largest MVPD and EchoStar became the fourth. Data for year-end 2006 show that Comcast remains the largest MVPD with 24.16 million subscribers, DirecTV is ranked second with 15.95 million subscribers, Time Warner is ranked third with 13.40 million subscribers, and EchoStar is ranked fourth with 13.10 million subscribers. However, under our attribution rules, Time Warner is the second largest MVPD today with 16.6 million subscribers when its attributable interest in the Bright House cable systems is factored in. Comcast Corp., *Comcast Reports 2006 Results and Outlook for 2007* (press release), Feb. 1, 2007; The DirecTV Group, Inc., *The DirecTV Group Announces Fourth Quarter and Full Year 2006 Results* (press release), Feb. 7, 2007; Time Warner Inc., *Time Warner Inc. Reports Results for 2006 Full Year and Fourth Quarter* (press release), Jan. 31, 2007; EchoStar Communications Corp., *EchoStar Reports Fourth Quarter 2006 Financial Results* (press release), Mar. 1, 2007.

concentration.<sup>637</sup> We recognize that the HHI is not an indicator of “competition” in the market for the 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 concentration of MVPD size from year to year. We use the reported MVPD subscriber shares to calculate HHI figures. In June 2006, the HHI for the national market for the purchase of programming was 1184. This represents a slight decrease from the March 2005 MVPD HHI of 1201.<sup>638</sup> This decrease in the HHI is due to the slight decrease in the market share of the largest MVPD.

180. **Consolidation Among Cable Operators.** Cable operators continue to pursue a regional strategy of “clustering” their systems.<sup>639</sup> The effect of clustering was an issue in the Commission’s approval of the sale of Adelphia’s systems to Comcast and Time Warner because the transaction resulted in more clustering for Comcast and for Time Warner in numerous markets.<sup>640</sup> In its decision, the Commission noted that the potential benefits from clustering, including marketing efficiencies and the deployment of facilities-based telephony and Internet access services, outweigh any potential anticompetitive effects of clustering on competition in product markets such as local programming or advertising. The Commission also noted that clustering can increase economies of scale and size, and thus enable cable operators to offer an increased variety of broadband services at reduced prices to customers in geographic areas that are larger than single cable franchise areas. Therefore, clustering can make cable operators more effective competitors to LECs whose local service areas are usually much larger than a single franchise area. The Commission also noted that clustering can provide a means of improving efficiency, reducing costs, and attracting increased advertising. On the other hand, the Commission noted that clustering can present a barrier to entry for the most likely potential overbuilder (*i.e.*, an adjacent cable operator). The Commission further noted that while clustering may help reduce programming costs and other expenses, the Commission’s findings reflect that these lower costs are not being passed along to subscribers in the form of lower monthly rates.<sup>641</sup>

181. With respect to the specific issues raised in the Adelphia transaction, the Commission agreed with Comcast and Time Warner that clustering can lead to certain efficiencies and cost savings. The Commission found, however, that the companies failed to provide sufficient supporting evidence for the Commission to verify and quantify the claimed efficiencies and cost savings or to determine the extent

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<sup>637</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 cable subscribers and the two largest DBS operators. The addition of the shares of other cable operators and smaller MVPDs would change the HHI only by a small fraction.

<sup>638</sup> See Appendix B, Table B-4.

<sup>639</sup> Appendix B, Table B-2 presents data on the number and subscriber size of major cable system clusters for 2002-2005.

<sup>640</sup> See *Adelphia Order*, 21 FCC Rcd at 8315-21 ¶¶ 265-277.

<sup>641</sup> *Id.* at 8318 ¶ 271.

to which they would flow through to consumers.<sup>642</sup> Although the Commission found that the potential public interest harms of the transactions, as conditioned, were outweighed by the potential public interest benefits, the Commission was not persuaded that the transactions would lead to a more competitive environment for the provision of the “triple play” of video, voice, and data services.<sup>643</sup> Accordingly, the Commission did not find that the increased clustering would result in an improved competitive environment for video programming services.<sup>644</sup> As for the deployment of telephony service, the Commission reiterated its previous findings that clustering could better position cable operators as potential service providers. To the extent that the transactions, through clustering or through the proposed upgrades and deployment schedules, result in the addition of competitive, facilities-based telephony service in Adelphia’s former service areas or to unserved areas where Comcast or Time Warner currently operate cable systems, the Commission found that consumers could benefit.<sup>645</sup>

182. Between July 2005 and June 2006, a total of 28 MVPD transactions were announced, valued at approximately \$5.3 billion and affecting approximately 1.8 million subscribers. At the end of 2005, there were 113 clusters with approximately 50.8 million subscribers compared to 118 clusters and approximately 51.5 million subscribers at the end of 2004.

## B. Vertical Integration and Other Programming Issues

### 1. Status of Vertical Integration

183. In 1992, Congress enacted various provisions related to vertical integration between cable operators and programming networks (e.g., program access, channel occupancy limit) to foster competition and diversity.<sup>646</sup> Our examination of vertical integration and affiliation in the MVPD industry, therefore, focuses on ownership affiliations between video programming distributors and video programming suppliers. Vertical relationships may have beneficial effects,<sup>647</sup> or they may deter competitive entry in the video marketplace and/or limit the diversity of programming.<sup>648</sup>

184. **Nationally Distributed Programming Networks.** In 2006, we identified 565 satellite-delivered national programming networks, an increase of 34 networks over the 2005 total of 531 networks.<sup>649</sup> Of the 565, 84 networks (14.9 percent) were affiliated with at least one cable operator in

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<sup>642</sup> *Id.* at 8318-19 ¶¶ 271-3.

<sup>643</sup> *Id.* at 8207 and 8319-20 ¶¶ 5, 275.

<sup>644</sup> *Id.* at 8319-20 ¶ 275.

<sup>645</sup> *Id.* at 8320 ¶ 276.

<sup>646</sup> *See* 47 U.S.C. §§ 533, 548.

<sup>647</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>648</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).

<sup>649</sup> Appendix C, Table C-1 and Table C-2.

2006.<sup>650</sup> Last year, 116 of the 531 satellite-delivered national networks we identified, or 21.8 percent, were affiliated with a cable operator.<sup>651</sup> In addition, 23 national nonbroadcast networks without any ownership interest by a cable operator, are affiliated with a DBS provider (*e.g.*, News Corp. and Dominion Video Satellite). Another 24 networks without any attributable cable ownership are affiliated with a company that holds interests in a DBS provider (*e.g.*, Liberty Media).

185. This year, we report an increase in the total number of satellite-delivered national networks, a decrease in the number of satellite-delivered national networks affiliated with a cable operator, and a decrease in the percentage of satellite-delivered national networks affiliated with a cable operator. We attribute these changes to updates to the Commission's prior estimates based on additional data sources and changes in the number of multiplexed networks distributed by iN DEMAND, a programming entity affiliated with several cable operators.<sup>652</sup>

186. Five of the top seven cable operators – Comcast, Time Warner, Cox, Cablevision, and Advance/Newhouse – hold ownership interests in satellite-delivered national programming networks. In total, 84 satellite-delivered national programming networks are affiliated with one or more of these cable operators.<sup>653</sup> Time Warner has an ownership interest in 39 national networks; Cox has an ownership

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<sup>650</sup> See Appendix C, Table C-1. See Tables C-1 and C-2. We count each unique programming service of a multiplexed package separately. This includes the Spanish language simulcast of a particular network, such as Discovery en Español. 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.61. See also *2000 Report*, 16 FCC Rcd at 6079, n.79. See also Appendix C, Table C-1 and Table C-2. This year we also do not count the “on-demand” multiplexes because these versions of on-demand networks are often aggregated into a single “on-demand” channel operated by the MVPD for selection and playback. In addition, we note that last year our nonbroadcast network total included 60 multiplexed iN DEMAND channels and two iN DEMAND HD channels. Based on Comments submitted in this proceeding, we have identified 8 multiplexed iN DEMAND channels and one iN DEMAND HD channel. See Letter from Michael Berman, Senior Vice President Business Affairs & General Counsel, iN DEMAND Networks, to Marlene Dortch, Secretary, Federal Communications Commission (Feb. 2, 2007) (“iN DEMAND Ex Parte Letter”).

<sup>651</sup> *2005 Report*, 21 FCC Rcd at 2575 ¶ 157. Although for purposes of this report we make every effort to identify ownership interests establishing vertical integration, we have not attempted to ascertain definitively whether certain vertical relationships would be cognizable under the Commission's attribution rules, nor would we wish to do so without reference to a particular rule or proceeding in which we could explore thoroughly all pertinent information. Hence, we do not intend here to render determinations regarding the specific application of the Commission's attribution rules.

<sup>652</sup> We continue to include information from programmers directly, and information from channel lineups of MVPDs currently offering programming. See Appendix C, Tables C-1 and C-2 *Sources*. See iN DEMAND Ex Parte Letter. See also Letter from John Goodman, President, CA2C, to Marlene Dortch, Secretary, Federal Communications Commission, (Feb. 21, 2007) (“CA2C Ex Parte Letter”).

<sup>653</sup> See Appendix C, Table C-1. Traditionally, we counted each programming service of a multiplexed network separately for purposes of reporting the networks in which the top MSOs hold ownership interests. In the 2003, we recognized that there was an alternative methodology that counts each multiplexed network as a single network (rather than counting based on the number of independent programming streams offered), and we reported MSO ownership using that methodology in the last three *Reports*. See *2002 Report*, 17 FCC Rcd at 26959-60 ¶135; *2003 Report*, 19 FCC Rcd at 1691-2 ¶143 and n.586; *2004 Report*, 20 FCC Rcd at 2832 ¶146; *2005 Report*, 21 FCC Rcd at 2576 ¶159. For purposes of historical analysis, and in light of iN DEMAND's clarification in this proceeding (continued....)

interest in 26 national networks; Advance/Newhouse, owner of cable operator Bright House Networks, has interests in 24 national networks; Comcast has an ownership interest in 18 national programming networks; and Cablevision has an ownership interest in 26 national networks.<sup>654</sup>

187. In the *Notice*, we sought information regarding the ownership of national satellite-delivered programming networks by MVPDs other than cable operators and by other media entities, such as DBS operators, broadcast television networks, and broadcast television station owners.<sup>655</sup> We have identified 124 programming networks that are owned by one or more of these media entities and that are not owned in any part by a cable operator.<sup>656</sup> These 124 networks represent 21.9 percent of the 565 total networks identified, and 25.8 percent of the 481 networks that are not affiliated a cable operator. Thus, of the 565 national nonbroadcast networks we have identified, 84 networks are affiliated with a cable operator, 124 of the remaining networks not affiliated with a cable operator are affiliated with a media entity, and the remaining 357 networks, or 63.2 percent, are not affiliated with any cable operator, DBS operator, or broadcast media entity.<sup>657</sup>

188. As shown in Table 12 below, there are 124 national, satellite-delivered nonbroadcast networks that are owned by a DBS operator (DIRECTV, EchoStar, and Dominion), or one or more national broadcast television networks (*i.e.*, ABC, CBS, Fox, NBC-Universal, and Univision) and that are not also owned by a cable operator.<sup>658</sup> Together, these 152 networks represent 26.9 percent of the 565 national nonbroadcast networks we have identified, and 31.6 percent of the 481 networks that are not affiliated with a cable operator. For example, News Corporation, which holds a 38 percent interest in both DBS operator DIRECTV and 100 percent interest in the Fox Entertainment Group, Inc., parent company of the Fox Broadcasting Company, has ownership interests in 20 national nonbroadcast networks not also owned by a cable MSO.<sup>659</sup> Dominion Video Satellite, provider of DBS service Sky

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(that it offers eight channels of programming), we again count each programming service of a multiplexed network separately. *See* iN DEMAND Ex Parte Letter. Were we to treat iN DEMAND as a single network for purposes of determining the number of networks in which each MSO has an ownership interest, we would find that 77 satellite-delivered national programming networks are affiliated with one or more of these cable operators; Time Warner has an ownership interest in 32 national networks; Cox has an ownership interest in 19 national networks; Advance/Newhouse has interests in 17 national networks; Comcast has an ownership interest in 11 national programming networks; and Cablevision has an ownership interest in 19 national networks. *See* Appendix C, Table C-1.

<sup>654</sup> *See* Appendix C, Table C-1.

<sup>655</sup> *Notice*, 21 FCC Rcd at 12234-5 ¶¶ 13-14.

<sup>656</sup> *See* Appendix C, Table C-2.

<sup>657</sup> *See* Appendix C, Tables C-1, C-2.

<sup>658</sup> *Id.* The WB network, through its parent company Time Warner, has ownership interests in 32 national nonbroadcast networks. *See* Appendix C, Table C-1. United Paramount Network (“UPN”) through its parent CBS Corporation, has ownership interests in 15 national nonbroadcast programming networks. *See* Viacom, *Separation Overview*, at [http://www.viacom.com/separation\\_overview.jhtml](http://www.viacom.com/separation_overview.jhtml) (visited Feb. 22, 2007). EchoStar jointly owns G4videogameTV with Comcast and the 15 Voom HD Networks also owned by Cablevision. *See* Appendix C, Table C-1. PBS Kids Sprout is a joint venture between Comcast and PBS. *Id.*

<sup>659</sup> News Corp., *2005 Annual Report*, at <http://www.newscorp.com/Report2006/AR2006.pdf> (visited Feb. 23, 2007); *Application of News Corporation and The DIRECTV Group, Inc., Transferors, and Liberty Media Corporation, Transferee, For Authority to Transfer Control*, Consolidated Application for Authority to Transfer Control, Jan. 29, 2007, at page 7-8, available at [http://svartifoss2.fcc.gov/servlet/ib.page.FetchAttachment?attachment\\_key=-123654](http://svartifoss2.fcc.gov/servlet/ib.page.FetchAttachment?attachment_key=-123654) (visited Feb. 23, 2007). *See* Appendix C, Table C-1.

Angel, has interests in three networks. Broadcast network CBS Corporation has ownership interests in 15 national nonbroadcast networks not also owned by a cable MSO, including one network jointly owned with NBC-Universal. Broadcast network ABC, through its parent company Disney, has ownership interests in 25 national networks not also owned by a cable MSO. NBC-Universal, through its parent company General Electric, has ownership interests in 22 nonbroadcast networks not also owned by a cable MSO, including eight networks owned jointly with Disney and Hearst, one with Ion Media (formerly known as Paxson Communications), and one with CBS Corporation. Univision, a Spanish language network and station licensee, has ownership interests in eight networks not also owned by a cable MSO. In addition, Liberty Media, which has an ownership interest in News Corp. (and indirectly has ownership interests in networks owned by News Corp.), has direct ownership interests in 24 national programming networks.<sup>660</sup> Furthermore, Viacom, which is no longer the parent company of the CBS and UPN broadcast networks, continues to hold ownership interests in 28 national nonbroadcast networks not also owned by a cable MSO.<sup>661</sup>

189. We also have identified programming networks affiliated with broadcast television station licensees not also owned by a cable operator, also shown on Table 12. Hearst, in joint ventures with Disney and NBC-Universal, has ownership interests in a total of 20 national nonbroadcast programming networks not also owned by a cable MSO. Of these, 12 are owned jointly with Disney, and eight are owned jointly with Disney and NBC-Universal. E.W. Scripps holds ownership interests in seven national programming networks. The Trinity Broadcasting Network owns five programming networks. Landmark Communications owns two networks. Tribune and Daystar Television Network each have ownership interests in one programming network not also owned by a cable MSO, and Ion Media has an interest in one network with NBC-Universal.<sup>662</sup>

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<sup>660</sup> See Appendix C, Table C-2.

<sup>661</sup> Although Viacom is no longer the parent company of the CBS and UPN broadcast networks or a licensee of broadcast stations, we include it because it continues to hold ownership interests in some of the most popular and most widely distributed networks (e.g., MTV, Nickelodeon). Sumner Redstone remains the Chairman of the Board at both Viacom and CBS Corporation. See Letter from Anne Lucey, Senior Vice President for Regulatory Policy, CBS Corporation, to Marlene Dortch, Secretary, Federal Communications Commission, (Mar. 14, 2007) (CBS Ex Parte Letter). In addition, CBS Corporation has merged its UPN network with Time Warner's WB network to form a new network called The CW. CBS Corp., *CBS Corp and Warner Bros. Entertainment Form New 5<sup>th</sup> Broadcast Network* (press release), Jan. 24, 2007.

<sup>662</sup> See Table 12 and Appendix C, Table C-2.

**Table 12: National Networks Affiliated with a DBS Operator, National Broadcast Television Network, or Broadcast Television Licensee, not Affiliated with a Cable Operator**

<b>Network Owner</b>	<b>Networks Wholly Owned or Owned in Part</b>
Dominion Video Satellite	Angel One, Angel Two, KTV- Kids and Teens Television/SPIRIT TV
News Corp.	Fox Movie Channel, Fox News Channel, Fox Reality, Fox Sports Net, FSN-HD, Fox Soccer Channel, Fuel, FX, National Geographic Channel, NGC-HD, Speed Channel, TV Guide Channel, TV Guide Interactive, Fox Sports en Español, Phoenix Info News, Phoenix North American Chinese Channel, Star News, Star One, Star Plus, Vijay
Viacom <sup>663</sup>	BET, BET Gospel, BET Hip Hop, BET on Jazz, Country Music Television (CMT), CMT Pure Country, Comedy Central, Logo, MHD, MTV, MTV2, MTV Chi, MTV Desi, MTV Hits, MTV Jams, MTV K, Nickelodeon/Nick at Nite, Nick 2, Nick GAS, Nicktoons, Noggin/N, Spike TV, TV Land, VH1, VH1 Classic, VH1 Soul, MTV Tres, VH Uno
CBS Corporation	College Sports Television (CSTV), Flix, Showtime, Showtime HD, Showtime Beyond, Showtime Extreme, Showtime Family, Showtime Next, Showtime Showcase, Showtime Too, Showtime Women, Sundance, The Movie Channel (TMC), TMC HD, TMC XTRA
CBS Corporation, NBC-Universal	Sundance Channel
NBC-Universal, Ion Media (Paxson)	Ion Media (formerly Paxson and i- Independent Television)
NBC-Universal	Bravo, CNBC, CNBC World, MSNBC, Sci-Fi Channel, Shop NBC, Sleuth, Universal HD, USA Network, Mun2, Telemundo, Telemundo Puerto Rico
NBC-Universal, Disney, Hearst	A&E, A&E HD, Biography Channel, Crime & Investigation, History Channel, History International, Military History Channel, History Channel en Español
Disney	ABC Family, Disney Channel, SoapNet, Toon Disney/jetix, Toon Disney en Español.
Disney, Hearst	ESPN, ESPN2, ESPN2 HD, ESPN Classic, ESPN HD, ESPNNews, ESPN PPV, ESPNU, ESPN Deportes, Lifetime Television, Lifetime Real Women, Lifetime Movie Network
Univision	Bandamax, De Pelicula, De Pelicula Clasico, Galavision, Ritmoson Latino, Univision, Telefuturo, Telehit
Liberty Media	America's Store, Encore, Encore HD, Encore Action, Encore Drama, Encore Love, Encore Mystery, Encore WAM!, Encore Westerns, Game Show Network, Hallmark Channel, Hallmark Movie Channel, Home Shopping Network, IndiePlex, Movieplex, QVC, RetroPlex, Starz!, Starz! Cinema, Starz! Comedy, Starz! Edge, Starz!HD, Starz! InBlack, Starz!Kids & Family
EW Scripps	DIY (Do-it-Yourself Network), Fine Living, Food Network, Food Network HD, Great American Country, HGTV, HGTV HD
Trinity Broadcasting	Church Channel, JCTV, Smile of a Child, Trinity Broadcasting, TBN Enlace USA
Daystar	Daystar Television Network
Landmark	Weather Channel, Weatherscan Local

<sup>663</sup> See note 661 *supra*.

Communications	
Tribune Company	WGN Superstation

190. **Top 20 National Nonbroadcast Programming Networks by Subscribership.** Currently, six of the top 20 nonbroadcast video programming networks (ranked by subscribership) are affiliated with a cable operator.<sup>664</sup> Of the remaining networks, one is C-SPAN, which is funded, but not directly owned or controlled, by MVPDs, and each of the other 15 ranked networks are affiliated with noncable media entities. These figures remained relatively stable over last year.<sup>665</sup>

191. **National Nonbroadcast Programming Networks by Viewership.** Of the 20 top-rated prime time nonbroadcast programming networks, seven are affiliated with a cable operator: (1) Time Warner owns 100 percent of TNT, Adult Swim, HBO, TBS, and Cartoon Network; (2) Cablevision owns American Movie Classics; and (3) Cox and Advance/Newhouse each own 25 percent of The Discovery Channel.<sup>666</sup> The remaining 13 networks are owned by other media entities. News Corp. has ownership interests in Fox News Channel, and Disney has ownership interests in The Disney Channel, Lifetime, and ESPN. Hearst has ownership interests in Lifetime and ESPN. NBC has ownership interests in the USA Network. Viacom has ownership interests in Nickelodeon, Nick at Nite, SpikeTV, Comedy Central, and MTV.

192. **Regional Programming Networks.** In 2006, we identified 101 regional networks, an increase of six networks over last year.<sup>667</sup> Many, but not all, regional networks are delivered via satellite to MVPDs for distribution to their subscribers, a fact that has implications for the Commission's program access rules. 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 101 regional networks we identified, 57 networks, or 56.4 percent, were affiliated with at least one MSO. Comcast has ownership interests in 15, or 14.8 percent, of all regional networks. Cablevision has ownership interests in 13, or 12.9 percent, of the regional networks. Time Warner has ownership interests in 15, or 14.8 percent, of the regional networks. Cox has ownership interests in 12, or 11.9 percent, of the regional networks, Advance Newhouse through its Bright House subsidiary has interests in two regional networks, and Charter has an ownership interest in one regional network. Although not a cable MSO, News Corp., which holds an interest in DBS operator DIRECTV, has ownership interests in 19, or 18.8 percent, of the 101 regional networks.

193. **Planned Services.** This year, we identified 83 programming services that have been planned but are not yet operational.<sup>668</sup> The planned-services count includes some overlap from previous

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<sup>664</sup> See Appendix C, Table C-5. Because of ties in the rankings, there are 22 nonbroadcast networks on this list.

<sup>665</sup> See 2005 Report, 21 FCC Rcd at 2578-9 ¶ 163.

<sup>666</sup> See Appendix C, Table C-6. For ratings purposes, Nielsen separates the 24-hour network that is comprised of Nickelodeon and Nick at Nite, as well as the 24-hour network that is comprised of Cartoon Network and Adult Swim, and reports their audiences separately. We count each 24-hour network once but follow Nielsen's method for Table C-6.

<sup>667</sup> 2005 Report, 21 FCC Rcd at 2579-80 ¶ 166.

<sup>668</sup> See Appendix C, Table C-4. See also 2005 Report, 21 FCC Rcd at 2650, Appendix C, Table C-4.

years because it can often take several years from the announcement of a new programming network to its initiation of service.<sup>669</sup>

## 2. Other Programming Issues

194. In this section, we discuss comments we received about the effectiveness of our program access, program carriage, and channel occupancy rules, as well as 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 leased access programming; significantly viewed programming; the packaging of programming services; sports programming; news programming; public, educational and governmental (“PEG”) channels; DBS public interest programming; non-English programming; locally originated and community-oriented programming; children’s programming; and access to programming by persons with disabilities.

### a. Regulatory Issues

195. **Program Access Rules.** The Commission initially adopted its rules concerning competitive access to cable programming in 1993, as part of its implementation of the 1992 Cable Act. These rules seek to promote competition and diversity in the multichannel video programming marketplace by preventing vertically integrated programming suppliers from favoring affiliated video distributors over unaffiliated MVPDs in the sale of satellite-delivered programming and making it more difficult for competing MVPDs to attract subscribers.<sup>670</sup>

196. 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 MVPDs. The rules prohibit any cable operator that has an attributable interest in a satellite-delivered 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. In addition, cable operators generally are prohibited from entering into exclusive distribution arrangements with vertically integrated programming vendors. The Commission has concluded that the language of Section 628(c) expressly applies to “satellite cable programming and satellite broadcast programming,” and that terrestrially delivered programming is “outside the direct coverage of Section 628(c).”<sup>671</sup>

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<sup>669</sup> See *1995 Report*, 11 FCC Rcd at 2202-5 Appendix H, Tables 3 and 4; *1996 Report*, 12 FCC Rcd at 4517-20 Appendix G, Tables 3 and 4; *2004 Report* 20 FCC Rcd at 2835 ¶ 152; *2005 Report* 21 FCC Rcd at 2580 ¶ 167.

<sup>670</sup> 47 U.S.C. § 548. See also U.S.C. § 521(a)(5)-(6) nt. On January 18, 2007, VDC Corporation, a new entrant which relies exclusively on the Internet for delivery of programming to subscribers, filed a program access complaint against Turner Network Sales, Inc., Turner Broadcasting System, Inc., Time Warner Inc., and Time Warner Cable to commence an adjudicatory proceeding at the Commission to obtain enforcement of the program access rules. See *VDC Corporation v. Turner Network Sales, Inc.* (filed Jan. 18, 2007).

<sup>671</sup> See *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in Video Programming Distribution: Section 628 (c)(5) of the Communications Act, Sunset of Exclusive Contract Prohibition*, 17 FCC Rcd 12124, 12158 ¶ 73 (2002). See also *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in* (continued....)

197. On February 20, 2007, the Commission issued a Notice of Proposed Rulemaking to determine whether the exclusivity prohibition continues to be necessary to preserve and protect competition and diversity in the distribution of video programming and whether to extend the prohibition beyond its current sunset date (*i.e.*, October 5, 2007).<sup>672</sup> In addition, as part of the review of the exclusivity prohibition, the Commission seeks comment on whether and how the procedures for resolving program access disputes under Section 628 should be modified.<sup>673</sup> The notice seeks comment on whether and how the procedures for resolving program access complaints should be modified; on the costs associated with the complaint process; and on whether pre-filing notice, pleading requirements, evidentiary standards, timing, and potential remedies are appropriate and effective. The notice also asks commenters whether the Commission should adopt alternative procedures or remedies such as mandatory standstill agreements and/or arbitration, and on the Commission's authority to adopt them.

198. Commenters again address the statutory exemption for terrestrially delivered programming in the existing program access rules. Several commenters cite problems accessing terrestrially delivered programming in Philadelphia, Boston, and San Diego, and express their concerns regarding incumbent cable operators' ability to restrict competing MVPDs' access to terrestrially delivered programming.<sup>674</sup> AT&T, USTelecom, Verizon, and other commenters urge the Commission to ensure that all competitors have access to so-called "must have" programming, particularly regional sports networks ("RSNs"), by eliminating the terrestrial exemption or by recommending that Congress do so.<sup>675</sup> AT&T states that the Commission has ample authority to address the anticompetitive practices of cable operators by closing the "terrestrial loophole" without the need for further statutory change.<sup>676</sup> Comcast counters that these concerns are unfounded. It states that commenters provide no examples of programming networks that were migrated to terrestrial delivery other than Comcast SportsNet Philadelphia, and that terrestrial delivery of that network was premised on legitimate business considerations.<sup>677</sup> Comcast adds that its newest sports networks are delivered by satellite.<sup>678</sup>

199. Commenters raise various other concerns relating to access to programming. EchoStar urges the Commission to extend, or make permanent, the ban on exclusive contracts between cable

(Continued from previous page) \_\_\_\_\_  
*Video Programming Distribution: Section 628 (c)(5) of the Communications Act, Sunset of Exclusive Contract Prohibition*, 22 FCC Rcd. 4252 (2007) ("Exclusive Contract Notice").

<sup>672</sup> See *Exclusive Contracts Notice supra* note 670.

<sup>673</sup> See *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in Video Programming Distribution: Section 628 (c)(5) of the Communications Act, Sunset of Exclusive Contract Prohibition*, 22 FCC Rcd at 4259-60 ¶¶ 13-15.

<sup>674</sup> See, *e.g.*, AT&T Comments at 16-17; DIRECTV Comments at 14; USTelecom Comments at 19-20; Verizon Comments at 29-30.

<sup>675</sup> *Id.* In the *Adelphia Order*, the Commission noted commenters' concerns that Comcast and Time Warner could achieve exclusivity via terrestrial delivery and adopted a condition forbidding the use of exclusive contracts with affiliated networks, regardless of the means of delivery. The Commission also adopted a condition permitting MVPDs to use arbitration to resolve disputes about access to Comcast's and Time Warner's affiliated RSNs. *Adelphia Order*, 21 FCC Rcd 8203, 8264-66, 8274-76 ¶¶ 134, 156-57, 160, 162.

<sup>676</sup> AT&T Comments at 17.

<sup>677</sup> Comcast Reply at 27-33. See *DIRECTV, Inc. v. Comcast Corp.*, 15 FCC Rcd at 22802, 22807-8 ¶ 14 (2000), *aff'd*, *EchoStar v. FCC*, 292 F.3d 749 (D.C. Cir. 2002).

<sup>678</sup> Comcast Reply at 30.

operators and vertically integrated cable networks.<sup>679</sup> Verizon states that the ban on exclusive programming contracts remains necessary, and suggests that the Commission extend the ban for a limited period of years until competition can take hold.<sup>680</sup> USTelecom argues that allowing the program access rules to sunset would “cripple” the prospect of real competition in the video industry, and would be an obstacle to broadband deployment.<sup>681</sup> NCTA urges the Commission to reject these proposals stating that competition is now flourishing in the multichannel video marketplace and that issues involving access to programming should be resolved through commercial negotiations.<sup>682</sup> Comcast states that the expansion of competition over the past four years renders the exclusivity ban obsolete.<sup>683</sup>

200. Commenters also discuss programmers’ ability to secure distribution.<sup>684</sup> TAC states that new networks that are affiliated with cable operators or broadcasters are more likely to be carried than independent programming networks. Specifically, TAC states that a cable-operator owned network is 62.3 percent more likely to be carried than an unaffiliated network. TAC urges the Commission to accept the premise that discrimination against independent networks exists in the cable industry and that such discrimination harms competition, diversity, and the public interest. TAC argues that the marketplace has not corrected itself, and that remedial measures and greater enforcement are required to prevent anticompetitive activity. TAC submits that unfair discrimination, not bandwidth constraints, underlie independent networks’ inability to gain carriage.<sup>685</sup> CCVM argues that there is no level playing field in the cable industry and characterizes the industry as “a small, highly exclusive private club made up of cable MSOs and owners of broadcast networks.” It adds that “new independent networks are unwelcome.” CCVM urges the Commission to establish safeguards so that a network’s ownership or affiliation does not determine whether it is carried by cable MSOs.<sup>686</sup>

201. Comcast disagrees with TAC’s allegation that independent programmers are subject to discrimination. Comcast states that, although TAC has submitted dozens of pleadings in various Commission proceedings over the past several years, it has yet to produce a single hour of programming.<sup>687</sup> Comcast notes that over the past four years it has entered into carriage agreements with more than 50 independent programming networks, many of which have no common ownership with major broadcasters, other cable programmers, or cable MSOs. Moreover, Comcast states that more than 90 percent of the networks it carries are not affiliated with it.<sup>688</sup>

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<sup>679</sup> EchoStar Reply at 2.

<sup>680</sup> Verizon Comments at 30.

<sup>681</sup> USTelecom Comments at 4-5.

<sup>682</sup> NCTA Reply at 8.

<sup>683</sup> Comcast Reply at 33.

<sup>684</sup> See, e.g., TAC Comments at 5; BTN Comments at 2-4; CCVM Comments at 3-5.

<sup>685</sup> TAC Comments at 5.

<sup>686</sup> CCVM Comments at 3-5.

<sup>687</sup> Comcast Reply at 40-41.

<sup>688</sup> Comcast Comments at 60-61.

202. **Program Carriage Rules.** These rules are intended to allow program suppliers that are unaffiliated with cable operators to secure carriage on cable systems that are affiliated with programmers. Section 616 of the 1992 Cable Act requires the Commission to establish regulations governing program carriage agreements and related practices between cable operators or other multichannel video programming distributors and video programming vendors.<sup>689</sup> Congress enacted Section 616 based on findings that some cable operators had required certain non-affiliated program vendors to grant exclusive rights to programming, a financial interest in the programming, or some other additional consideration as a condition of carriage on the cable system.<sup>690</sup> Accordingly, the Commission's rules implementing Section 616 prohibit all MVPDs from (1) demanding a financial interest in any program service as a condition of carriage of the service on its system; (2) coercing any video programming vendor to provide exclusive rights as a condition of carriage; and (3) unreasonably restraining the ability of a video programming vendor to compete fairly by discriminating on the basis of affiliation or non-affiliation of vendors in the selection, terms, or conditions of carriage.<sup>691</sup> The program carriage rules also specify complaint procedures and remedies for violations of these requirements. Complaints may be brought by aggrieved video programmers or MVPDs.<sup>692</sup>

203. In the *Adelphia Order*, the Commission addressed allegations of potential public interest harm for nationally distributed programming. Commenters argued that Comcast's and Time Warner's increased subscribership as a result of the transactions would allow them, either unilaterally or in concert with each other, to determine which programmers survive in the video marketplace.<sup>693</sup> The Commission found that the transactions would be likely to increase Comcast's and Time Warner's incentive to deny carriage to rival unaffiliated RSNs, with the intent of forcing the RSNs out of business or discouraging potential rivals from entering the marketplace. To address this concern, the Commission imposed a commercial arbitration condition for unaffiliated RSNs as an alternative to the existing program carriage complaint procedures. Under this condition, for a period of six years from the adoption date of the *Adelphia Order* (i.e., July 13, 2006), an RSN unaffiliated with any MVPD that has been denied carriage by Comcast or Time Warner may submit its carriage claim to arbitration within 30 days after the denial of carriage.<sup>694</sup>

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<sup>689</sup> 47 U.S.C. § 536(a).

<sup>690</sup> *Implementation of Sections 12 and 19 of the Cable Television Consumer Protection and Competition Act of 1992*, 9 FCC Rcd 2642, 2643 ¶ 2 (1993) ("Second Program Carriage Order"); see also 47 U.S.C. § 536(a)(1)-(3).

<sup>691</sup> See 47 C.F.R. § 76.1301; see also *Second Program Carriage Order*, 9 FCC Rcd at 2649 ¶ 16.

<sup>692</sup> Section 76.1302 authorizes video programming vendors and MVPDs to file program carriage complaints with the Commission. 47 C.F.R. § 76.1302; see also *Second Program Carriage Order*, 9 FCC Rcd at 2652-57 ¶¶ 23-36.

<sup>693</sup> *Adelphia Order*, 21 FCC Rcd at 8250 ¶ 100.

<sup>694</sup> *Adelphia Order*, 21 FCC Rcd at 8287-8 ¶¶ 190-191. The Commission adopted a condition that permits the use of commercial arbitration to resolve disputes regarding commercial leased access. *Id.* at 8253-4 ¶ 109. This condition is in effect for six years from the date of adoption of the *Adelphia Order* (i.e., July 13, 2006). Pursuant to this condition, programmers seeking to use commercial leased access may submit disputes about the terms of access to an arbitrator for resolution. The arbitrator will be directed to settle disputes about pricing in accordance with the formula set forth in the Commission's leased access rules. 47 C.F.R. § 76.76.970. See also ¶ 218 (NPRM seeking comment on commercial leased access and program carriage rules and procedures).

204. ***Must Carry and Retransmission Consent.*** In 1992, Congress enacted statutory provisions concerning the carriage of local broadcast television stations by cable operators and subsequently adopted a carriage regime for DBS providers in 1999. Among the reasons for enacting broadcast carriage provisions, Congress found that broadcasters and consumers benefit from the carriage of local television stations and that cable operators derive benefits from offering this popular programming. It also concluded that cable carriage of broadcast television signals without consent or copyright liability resulted in broadcasters subsidizing cable operators, creating a competitive imbalance between these two industries that compete for audience, advertising, and programming.<sup>695</sup>

205. 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. Cable operators must set aside additional channels for noncommercial stations, depending on the system's channel capacity.<sup>696</sup> Pursuant to the SHVIA, DBS operators may provide local-into-local broadcast television service.<sup>697</sup> Unlike cable operators, which are required to carry local television stations in every market they serve, a DBS operator need not carry any local TV signals, but where it chooses to carry local television stations, it must carry all stations in that market ("carry one, carry all").<sup>698</sup> In both the cable and DBS contexts, commercial broadcasters may elect to be carried pursuant to must carry status or retransmission consent.<sup>699</sup> Where a station elects must carry, it is prohibited from receiving compensation for carriage.<sup>700</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.<sup>701</sup> The current must-carry rules generally apply to the carriage of analog television stations only.<sup>702</sup>

206. In this year's *Notice*, we asked for information on the extent to which 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. We asked what forms of compensation broadcasters are receiving for

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<sup>695</sup> 47 U.S.C. § 521(a)(19) note; Pub. L. No. 102-385, 106 Stat. 1460, Oct. 5, 1992. Pursuant to 47 U.S.C. § 325(b)(3)(C)(ii), MVPDs are prohibited from retransmitting the signal of any commercial broadcasting station without the express authority of the originating station. Exclusive retransmission consent agreements are prohibited. Initially, the exclusivity provisions were to sunset on Dec. 31, 2005, but the sunset of the exclusivity provisions was extended to Jan. 1, 2010, in SHVERA.

<sup>696</sup> 47 U.S.C. §§ 534(b), 535(b). *See also* 47 C.F.R. § 76.56.

<sup>697</sup> Pub. L. No. 106-113, 113 Stat. 1501, 1501A-526 to 1501A-545 (Nov. 29, 1999).

<sup>698</sup> 47 C.F.R. § 76.66.

<sup>699</sup> 47 C.F.R. § 76.64.

<sup>700</sup> 47 C.F.R. § 76.60.

<sup>701</sup> *See, e.g., 2004 Report*, 20 FCC Rcd at 2805 ¶ 79; *2005 Report*, 21 FCC Rcd at 2503 ¶ 177.

<sup>702</sup> The Commission has determined that when a television station broadcasts only a digital signal, it is entitled to carriage. *See Carriage of Digital Television Broadcast Signals, Amendments to Part 76 of the Commission's Rules, Implementation of the Satellite Home Viewer Improvement Act of 1999, Local Broadcast Signal Carriage Issues, Application of Network Nonduplication, Syndicated Exclusivity and Sports Blackout Rules to Satellite Retransmission of Broadcast Signals*, 16 FCC Rcd at 2598 (2001).

retransmission consent, how they account for indirect compensation, and what marketplace changes are taking place with regard to retransmission consent.<sup>703</sup>

207. A number of commenters express concern about the ability of broadcasters to leverage the existing retransmission consent, network nonduplication, and syndicated exclusivity rules to demand exorbitant compensation for their programming.<sup>704</sup> CRCR, for example, states that by threatening to withhold local broadcast programming, the big four broadcast networks and other broadcast conglomerates have used retransmission consent to gain leverage over smaller cable operators to launch new affiliated networks, to obtain higher license fees and broader distribution for those new networks, and to obtain higher license fees for their existing affiliated networks. It states that the use of retransmission consent as a means of launching, and increasing the fees for, broadcaster-owned networks has been a major factor in shaping the price and composition of the cable expanded basic tier.<sup>705</sup> In particular, CRCR asserts that retransmission consent disproportionately impacts expanded basic tiers, noting that the most widely carried nonbroadcast networks added since retransmission consent are affiliated with broadcast networks (e.g., ESPN2, Fox News).<sup>706</sup> In addition, it argues that the use of retransmission consent has substantially foreclosed the opportunities for programming networks that are not affiliated with broadcasters to gain carriage on the expanded basic tier, thereby depriving consumers of the benefits of programming quality and diversity, and the opportunity for lower prices. CRCR urges the Commission to initiate an inquiry to review the retransmission consent issue and to consider the steps that can be taken to protect consumers under Sections 325 and 543 of the Communications Act.<sup>707</sup> CRCR also urges the Commission to recommend to Congress that it review and reevaluate the impact of retransmission consent on the video programming marketplace and on consumers.<sup>708</sup>

208. CRCR also submits a study by William P. Rogerson that examines the evidence of both the social benefits of providing broadcasters with an extra revenue stream and the social costs of retransmission consent policy in the form of increased cable subscription fees.<sup>709</sup> The study finds that there is no evidence that retransmission consent policy has produced any significant social benefits. The study also finds that the big four broadcast networks generally have chosen to tie retransmission consent to the carriage of relatively new affiliated video programming networks and that, as a result, networks that are not affiliated with the big four broadcast networks have difficulty gaining carriage on cable systems. The paper also finds that broadcasters have used the threat of withdrawing retransmission consent to force cable operators to pay higher prices for cable programming than they otherwise would be willing to pay and/or to purchase programming that they otherwise would be unwilling to purchase, creating significant social costs. The paper concludes that policy-makers should investigate whether there are any social

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<sup>703</sup> See Notice, 21 FCC Rcd at 12229 ¶ 56.

<sup>704</sup> See, e.g., CRCR Comments at 5-6; BSPA Comments at 19-20; PVT Comments at 2-3; ACA Comments at 3-4; BendBroadband Reply at 6-7.

<sup>705</sup> CRCR Comments at 5-10.

<sup>706</sup> CRCR Supplemental Comments at 2-10 (filed Feb. 15, 2007).

<sup>707</sup> 47 U.S.C. § 325 and 47 U.S.C. § 543.

<sup>708</sup> CRCR Comments at 4-12.

<sup>709</sup> *Id.* at Attachment, *The Social Cost of Retransmission Consent Regulations*, Feb. 28, 2005.

benefits resulting from this policy and that it should be changed unless benefits can be found that outweigh the social costs.<sup>710</sup>

209. BSPA expresses concern about the ability of broadcasters to leverage retransmission consent to demand above-market compensation for programming and asks the Commission to monitor this situation and take corrective action, if necessary.<sup>711</sup> ACA contends that most independent cable operators do not have the resources to contest with large media groups and, as a result, have no choice but to pay a substantial premium for retransmission consent, and to pass that premium through to their rural and small-market subscribers. ACA states that this puts independent cable operators at a significant competitive disadvantage to their larger DBS competitors.<sup>712</sup> PVT argues that broadcasters have the power to impose unreasonable retransmission consent demands on small cable operators. Moreover, broadcasters can use the existing network non-duplication rules to prevent cable operators from acquiring substitute programming from neighboring markets.<sup>713</sup> PVT requests that the Commission reform the current retransmission consent and network nonduplication rules to make future retransmission consent negotiations more equitable for rural cable operators and the customers they serve.<sup>714</sup>

210. BendBroadband fears that in its next round of retransmission consent negotiations broadcasters will use their market power to demand cash payments that would be prohibitively high for a small cable operator, and to demand carriage of unwanted multicast or nonbroadcast programming as a condition for carrying local broadcast programming. BendBroadband states that this may cause it severe economic harm, and urges the Commission to act to insure that tying arrangements of any kind are prohibited in retransmission consent agreements.<sup>715</sup> EchoStar urges the Commission to enforce the good faith requirement in retransmission consent negotiations to discourage program packaging and tying requirements. It argues that DBS providers have even less negotiating leverage with broadcasters than do dominant cable providers because they offer fewer viewers in each broadcaster's local market.<sup>716</sup>

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<sup>710</sup> *Id.*

<sup>711</sup> BSPA Comments at 19-20.

<sup>712</sup> ACA Comments at 3-4.

<sup>713</sup> PVT Comments at 3.

<sup>714</sup> Specifically, PVT requests that the Commission: (1) modify the retransmission consent rules to require broadcasters to charge reasonably comparable consideration, on a per-subscriber basis, for retransmission consent to all cable operators in a designated market area (DMA); (2) revise the network nonduplication rules to preclude a broadcaster that refuses to give its retransmission consent to a cable operator from claiming network nonduplication protection with respect to that cable operator; and (3) revise the network nonduplication rules to exempt small cable systems (defined as integrated cable systems serving less than 25,000 subscribers) and rural cable systems (defined as cable systems located outside urbanized areas) from network nonduplication requirements. *See* PVT Comments at 4-5.

<sup>715</sup> BendBroadband Reply at 2-5. Specifically, BendBroadband urges the Commission to adopt a Notice of Inquiry proposing steps to protect cable customers from basic tier price hikes that would be forced by cash for carriage arrangements (pursuant to authority under 47 U.S.C. § 543) and to consider whether new regulations should be imposed to prevent unlawful tying practices by broadcasters in retransmission consent negotiations (pursuant to authority under 47 U.S.C. § 325). *See* BendBroadband Reply at 6-7.

<sup>716</sup> EchoStar Comments at 12-13.

OPASTCO contends that the practice of demanding tying arrangements in return for retransmission consent impedes rural LEC entry into the MVPD marketplace. In particular, it is concerned about the availability of programming at affordable rates and under reasonable conditions. OPASTCO claims that the practice of tying unwanted programming with content that is in high demand not only raises end-user prices, but also reduces customers' choice of programming packages and prevents MVPDs from crafting tiers that are aligned with consumer demand.<sup>717</sup>

211. NAB states that the Commission should reject claims that retransmission consent harms competition in the video marketplace. It contends that consolidation in the cable television marketplace and increased regional clustering, combined with a decrease in the number of over-the-air television viewers, have forced smaller, local broadcasters to negotiate with larger national and regionally clustered cable companies and other large MVPDs to ensure their future viability. NAB urges the Commission to reject arguments that higher cable prices are the result of retransmission consent. It states that few cable companies have made cash payments to broadcast stations for use of their signal, instead making in-kind payments for such use.<sup>718</sup> NAB claims that broadcast programming increases the value of cable systems to consumers. It states that the retransmission consent rules merely provide a suitable system for broadcasters to be fairly compensated for supplying that increased value. In response to the CRCR's claims that broadcasters' excessive cash demands force cable operators to place unaffiliated nonbroadcast networks on higher, more expensive tiers, NAB states that broadcasters cannot be blamed for a cable company's voluntary decision to move unaffiliated programming to higher tiers.<sup>719</sup> NAB argues that retransmission consent rules provide a level playing field on which broadcasters can compete with other program providers.<sup>720</sup>

212. The Joint Broadcasters maintain that the current retransmission consent process is working as intended by Congress and provides benefits to consumers, broadcasters, and MVPDs alike. Moreover, the process has strengthened local broadcasting and helped ensure a competitive video marketplace, according to the Joint Broadcasters. They argue that they have submitted ample evidence in previous proceedings over the past three years to demonstrate conclusively that the current retransmission consent process is working well and that it serves the public interest.<sup>721</sup> The Joint Broadcasters point out that the Commission conducted an extensive review of the retransmission consent process last year, at the direction of Congress, and that the Commission found that the system was working properly and that no

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<sup>717</sup> OPASTCO Reply Comments at 8-10.

<sup>718</sup> Some broadcasters do, however, receive cash payments. Hearst Argyle Television Inc., for example, reported a \$2.1 million increase in retransmission revenues for the three-month period ending Sept. 30, 2006, compared with a \$2.3 million increase recorded for the same period in 2005. Hearst Argyle Television Inc., *SEC 10-Q Filing for Period Ending September 30, 2006*, at 19. Sinclair Broadcast Group reported a \$2.8 million increase in revenue from retransmission and other fees for the nine-month period ending Sept. 30, 2006. Sinclair Broadcast Group, *SEC 10-Q Filing for Period Ending September 30, 2006*, at 35.

<sup>719</sup> NAB Reply at 5-6.

<sup>720</sup> *Id.*

<sup>721</sup> Joint Broadcasters Reply at Exhibit A (attaching comments filed in the SHVERA Inquiry, MB Docket No. 05-28, and for the *2003 Report*).

specific statutory amendments were needed.<sup>722</sup> The Joint Broadcasters attach a report by Michael Baumann and Kent Mikkelson of Economics Incorporated<sup>723</sup> that responds to the study by William Rogerson, which was submitted by the CRRC. According to the Joint Broadcasters, the Baumann and Mikkelson Report makes clear that the retransmission consent process does not harm competition in the MVPD programming marketplace. The report also concludes that retransmission consent has not been a major factor contributing to the increase in cable rates. The Joint Broadcasters conclude that the Commission should disregard the CRRC's pleas for government intervention.<sup>724</sup>

213. One recent retransmission consent dispute between a cable operator and a local broadcaster gained significant public attention. Through most of 2006, Sinclair Broadcasting and Mediacom engaged in protracted retransmission consent negotiations concerning Mediacom systems that serve 700,000 subscribers in various mid-sized and smaller markets. After Mediacom sought Commission intervention, the Commission found no violation of the rule requiring good faith retransmission consent negotiations.<sup>725</sup> Based on the record, the Commission found that the dispute was a disagreement over the appropriate valuation of Sinclair's broadcast stations.<sup>726</sup> We observed that, absent other factors, a disagreement over the rates, terms, and conditions of retransmission consent – even fundamental disagreement – is not indicative of a lack of good faith. The Commission recommended, but did not require, the use of binding arbitration.<sup>727</sup> We recognized that we do not have the authority to require the parties to submit to binding arbitration, but strongly encouraged the parties to submit to such arbitration.<sup>728</sup> After a month-long public dispute, the parties reached a multi-year retransmission consent

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<sup>722</sup> See *Retransmission Consent and Exclusivity Rules: Report to Congress Pursuant to Section 208 of the Satellite Home Viewer Extension and Reauthorization Act of 2004* (MB Sept. 8, 2005), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-05-2425A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-2425A1.pdf).

<sup>723</sup> *Response to Comments Regarding Economic Consequences of Retransmission Consent*, Michael Baumann and Kent Mikkelson, Economics Incorporated, March 31, 2005. This report responds to a study by William Rogerson, which was submitted by CRRC originally in the SHVERA Inquiry and again in this proceeding. The report concludes that broadcasters do not have the type or degree of market power that leads to harm to competition or to consumers. Moreover, according to the report, obtaining carriage for nonbroadcast programming in return for retransmission consent does not harm competition in the MVPD programming market.

<sup>724</sup> Joint Broadcasters Reply at 2-4.

<sup>725</sup> 47 C.F.R. § 76.65; *Mediacom Communications Corporation v. Sinclair Broadcast Group, Inc.*, 22 FCC Rcd 35 (MB 2007).

<sup>726</sup> *Id.* at 38 ¶ 6.

<sup>727</sup> *Id.* at 45 ¶ 25. The Commission stated that both parties could agree to final binding arbitration by the Bureau. We stated that if both parties agreed to final binding arbitration by the Media Bureau, we would require Sinclair to authorize Mediacom's continued carriage of its stations' signals during the pendency of arbitration. In the alternative, this arbitration could be conducted through the American Arbitration Association. Although the Commission would not have authority to order continued carriage in this case, the Commission stated that it would encourage the parties to prevent a disruption of service.

<sup>728</sup> See also *Mediacom Communications Corporation v. Sinclair Broadcast Group, Inc.*, 22 FCC Rcd 284 (MB 2007) at 36-7 ¶ 3.

agreement covering the analog and digital signals of 24 local broadcast stations owned or programmed by Sinclair in 16 markets served by both Sinclair and Mediacom.<sup>729</sup>

214. **Leased Access Programming.** The statutory framework for commercial leased access was established by the 1984 Cable Act and amended by the 1992 Cable Act.<sup>730</sup> To implement these amendments, the Commission's leased access rules require cable operators to set aside a certain number of channels, depending on the size of the cable system, for leased access use by unaffiliated programmers. The objective of this channel set-aside requirement is to increase the diversity of information sources made available by cable operators. The Act gives the Commission the authority to: (1) determine the maximum reasonable rate that a cable operator may establish for leased access use, (2) establish reasonable terms and conditions for leased access, and (3) establish procedures for the expedited resolution of leased access disputes. The methodology for determining the applicable leased access rate is proscribed in the Commission's rules.<sup>731</sup>

215. Several commenters express concerns regarding the cost and availability of leased access programming. TAC argues that leased access is not a practical means for securing widespread carriage. In support of this assertion, TAC provides its own calculations based on Time Warner's leased access rates by cable system. Based on these calculations, TAC concludes that, if an independent network were to use leased access as a means of gaining carriage on Time Warner's cable systems, it would cost that network approximately \$144 million a year to gain access to approximately 7 million homes on digital tiers. TAC argues that such an arrangement would put an independent network at a significant competitive disadvantage *vis-a-vis* affiliated networks with which it must compete, because affiliated networks are able to gain carriage and receive payment from cable operators rather than having to pay for carriage. Using Time Warner's leased access rates as an assumed industry average, to gain access to 50 million homes, the number TAC believes required for long-term sustainability, an independent network would have to pay cable operators approximately \$1 billion per year for carriage. Hence, TAC concludes that no network could survive under such a scenario and the leased access system is not a viable means for gaining widespread carriage.<sup>732</sup>

216. BTN shares TAC's concern and states that the Commission may be falsely led to assume that affordable leased access is an effective means of increasing carriage opportunities for minority owned and independently owned networks. BTN states that leased access is not a practical solution by which such networks can gain widespread distribution. BTN contends that independent networks must receive license fee payments, just as affiliated networks do, in order to be competitive in the marketplace. If independent networks must bear the additional burden of paying cable operators for carriage, according to BTN, they will not be able to compete with affiliated networks that receive payment from cable operators.<sup>733</sup> Island TV, a local cable channel in Gulf Shores, Alabama, contends that it faced many difficulties and long delays in seeking to gain carriage on Mediacom's cable system, the local cable

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<sup>729</sup> MediaWeek, *Sinclair, Mediacom Strike Retrains Deal*, [http://www.mediaweek.com/mw/news/recent\\_display.jsp?vnu\\_content\\_id=1003541701](http://www.mediaweek.com/mw/news/recent_display.jsp?vnu_content_id=1003541701) (visited Feb. 20, 2007).

<sup>730</sup> 1992 Cable Act, Section 612 (47 U.S.C. §532).

<sup>731</sup> 47 C.F.R. §§ 76.970-977.

<sup>732</sup> TAC Comments at 9.

<sup>733</sup> BTN Comments at 3.

operator, via leased access. After an almost four-year period of repeated delays and negotiations, Island TV finally launched as a leased access channel on August 1, 2006.<sup>734</sup> Similarly, Charlie Stogner asserts that Congress' goal that leased access would be an outlet for local entities unaffiliated with the local cable operator has never materialized. He also states that the lack of strict Commission rules and guidelines for leased access has created obstacles for programmers trying to obtain leased access carriage.<sup>735</sup>

217. Comcast notes that TAC and BTN question whether the Commission's leased access rules can be used effectively by independent programming networks to secure carriage on cable systems. Comcast contends that these issues are inappropriate for consideration in this proceeding, and states that the Commission should reserve judgment on leased access issues until it has amassed a complete record in a separate proceeding. In the meantime, Comcast states that its systems will continue to offer independent programmers the opportunity to purchase time on local leased access channels at reasonable rates that are set in accordance with the Commission's rules.<sup>736</sup>

218. As noted in the *Adelphia Order*, the Commission determined that it would review its commercial leased access rules.<sup>737</sup> On March 2, 2007, the Commission adopted an NPRM seeking comment on its commercial leased access and program carriage rules and procedures.<sup>738</sup>

**219. *Significantly Viewed Programming.*** In November 2005, pursuant to SHVERA, the Commission established rules and regulations by which satellite carriers may offer Commission-determined "significantly viewed" signals of distant broadcast stations to subscribers.<sup>739</sup> DIRECTV contends that the lack of DBS carriage of significantly viewed signals is largely attributable to the Commission's overly restrictive interpretation of SHVERA's requirements.<sup>740</sup> In particular, DIRECTV states that the requirement that local and significantly viewed signals be afforded "equivalent bandwidths" hampers DBS carriage of significantly viewed signals.<sup>741</sup> DIRECTV asserts that it is not technically feasible to perform the required "objective comparison" to match bit rates between network

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<sup>734</sup> Island TV Reply at 1-2. Island TV states that it is concerned that, when its leased access agreement is up for renewal, it may not be renewed and it wants the Commission to take note of this concern.

<sup>735</sup> See Letter from Charlie Stogner, CEO StogMedia, to the FCC (Dec. 26, 2006). Mr. Stogner also proposes that the Commission require cable operators to submit information, including: copies of the agreements they provide applicants for leased access channels; the number and placement of channels set aside for leased access; identification of the leased access users of these channels; the programming distributed using leased access; and any applications that entities seeking leased access carriage must complete.

<sup>736</sup> Comcast Reply at 41. See also 47 C.F.R. §§ 76.970-977.

<sup>737</sup> See *Adelphia Order*, 21 FCC Rcd at 8277 ¶ 165. See also 47 C.F.R. §§ 76.970-76.977.

<sup>738</sup> *Leased Commercial Access: Development of Competition and Diversity in Video Programming Distribution and Carriage*, MB Docket No. 07-42, FCC 07-18 (adopted Mar. 2, 2007).

<sup>739</sup> See *Implementation of the Satellite Home Viewer Extension and Reauthorization Act of 2004, Implementation of Section 340 of the Communications Act*, 20 FCC Rcd 17278 (2005). See also 47 C.F.R. § 76.54.

<sup>740</sup> DIRECTV Comments at 17-19. See also Petition for Reconsideration of DIRECTV, Inc. and EchoStar Satellite LLC, MB Docket No. 05-49 (filed Jan. 26, 2006); Consolidated Reply to Oppositions of DIRECTV, Inc. and EchoStar Satellite LLC, MB Docket No. 05-49 (filed Mar. 15, 2006).

<sup>741</sup> 47 C.F.R. § 76.54(h).

station pairs in real time. Similarly, DIRECTV asserts that the Commission's narrow interpretation of the SHVERA requirement that a DBS subscriber receive the analog signals of a local network station as a pre-condition to receiving the analog signals of significantly viewed network stations also has deterred DBS carriage of significantly viewed signals because the local affiliates can condition or withhold retransmission consent unless the DBS carrier agrees not to import significantly viewed signals.<sup>742</sup>

**b. Packaging of Programming Services**

220. In the *Notice*, we sought information on how video programming distributors package and market their programming. We also sought comment concerning the extent to which MVPDs offer or plan to offer consumers more choice in channel selection, for example, by offering themed tiers, subscriber-selected tiers, or more channels sold individually, rather than relying on the traditional tiering practice for selling programming services.<sup>743</sup> The commenters indicate that MVPDs generally continue to offer large packages or tiers of service that include a variety of programming services selected by the MVPD.<sup>744</sup> Generally, subscribers cannot select the programming that is included in the packages offered to them or subscribe to programming networks on an individual basis.

221. **Marketplace Developments.** A number of cable operators launched family-friendly programming tiers early in 2006.<sup>745</sup> Comcast, for example, reports that its subscribers now can purchase a family tier package that, along with the basic tier, contains an average of 35-40 channels.<sup>746</sup> According to Comcast, its family tier package in a typical community (Arlington, Virginia, in this example) costs around \$33.45 per month, which reflects the cost of basic service at \$14.85, a 16-channel family tier for \$14.95, and a digital set-top box and remote at \$3.65.<sup>747</sup> Cox now offers a family tier in many of the communities it serves, consisting of an average of 40 channels of programming, including the basic tier plus selected general entertainment, news, and sports programming.<sup>748</sup> Cox's Family Tier is offered at a national average price of \$32 per month for the programming package, set-top box with electronic/interactive program guide capability and parental controls for specific programs and channels. Time Warner offers a tier of service that it calls "Family Choice." This package offers 15 family-friendly channels that can be ordered by any customer who subscribes to the minimum basic service tier. As of early 2006, Time Warner's Family Choice package was priced at \$12.99 in addition to the cost for basic

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<sup>742</sup> DIRECTV Comments at 18. *See also* 47 C.F.R. § 76.54(g).

<sup>743</sup> *Notice*, 21 FCC Rcd at 12236 ¶ 17.

<sup>744</sup> *See, e.g.*, Comcast Comments at 60-62; NCTA Comments at 33-34.

<sup>745</sup> *2005 Report*, 21 FCC Rcd at 2591-2 ¶ 196; *Notice*, 21 FCC Rcd at 12236 ¶ 17.

<sup>746</sup> Comcast Comments at 61. Comcast reports that its family tier package includes the basic tier plus selected additional channels such as PBS Kids Sprout, Disney Channel, Toon Disney, Nickelodeon, and Discovery Kids.

<sup>747</sup> Comcast Comments at Exhibit 2.

<sup>748</sup> Cox Communications, Inc., *Cox Communications Announces Family Friendly Package* (press release), Jan. 10, 2006. The 40 channels include the basic tier plus selected additional channels such as the Disney Channel, Discovery Kids, Headline News, National Geographic Channel, Home & Garden TV, DIY (Do It Yourself), Nickelodeon, Fit TV, Sprout, Discovery Science, Boomerang, and GSN. Local systems will be able to tailor the package with The Weather Channel or Weatherscan Local, C-SPAN 2 or 3, and additional religious and/or Spanish-language programming.

service, which it says varies among systems, but for which the average monthly charge is approximately \$12.<sup>749</sup> Insight Communications' family-friendly tier, with 15 channels of programming, is available to customers for \$13 as an add-on to their basic service, which includes approximately 21 channels. A digital set-top box is also required to access the tier. These MSOs have announced that they intend to offer family-friendly programming to most if not all of their subscribers although it appears that they are still in the process of rolling out their family tiers.<sup>750</sup> DIRECTV began offering a new family-friendly programming package in April 2006 that provides more than 40 channels and includes local broadcast stations at a price of \$29.99 per month.<sup>751</sup> On February 1, 2006, EchoStar began offering a family tier with approximately 40 channels at a price of \$19.99 per month for nonbroadcast channels, and \$24.99 per month with local channels.<sup>752</sup> In addition, Dominion Video Satellite, Inc., through its Sky Angel DBS service, provides faith-based programming and family-oriented entertainment networks.<sup>753</sup>

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<sup>749</sup> Time Warner, *Time Warner Cable Launches Family Choice Tier* (press release), Dec. 15, 2005.

<sup>750</sup> Comcast Corp., *Comcast Announces Family Tier* (press release), Dec. 22, 2005; Time Warner, *Time Warner Cable Launches Family Choice Tier* (press release), Dec. 15, 2005; Cox Communications, Inc., *Cox communications Announces Family Friendly Package* (press release), Jan. 10, 2006; Insight Communications Company, *Insight Communication Announces Plans for Family-Friendly Tier of Programming* (press release), Jan. 17, 2006.

<sup>751</sup> DIRECTV Comments at 6. DIRECTV's family-friendly programming package includes: Bloomberg, Boomerang, BYU TV, CNN Headline News, C-SPAN 1, C-SPAN-2, Daystar, Discovery Kids, Disney East, Disney West, DIY Network, EWTN, Food Network, Hallmark Channel, HGTV, HITN, HSN, Link TV, NASA TV, National Geographic Channel, Nickelodeon/Nick at Night East, Nickelodeon/Nick at Night West, Nicktoons, Noggin/The N, NRB Network, Once TV, PBS Kids Sprout, QVC, RFD TV, Shop at Home, Shop NBC, TCT Network, The Science Channel, The Weather Channel, Toon Disney, Trinity Broadcasting Network, Word Network, World Harvest Network, XM Disney Radio, and XM Kids.

<sup>752</sup> EchoStar Comments at 22. EchoStar's family-friendly programming package includes: Animal Planet, The Biography Channel, Bloomberg TV, Boomerang, BYUTV, C-SPAN, C-SPAN 2, CSTV, Discovery Kids, Discovery Times, Do It Yourself Network, EWTN, Food Network, Fox News Channel, Great American Country, CNN Headline News, HSN, NASA, Nickelodeon East, Nickelodeon West, Nick Games & Sports, Nicktoons, Outdoor Channel, RFDTV, Shop at Home, ShopNBC, The Science Channel, The Weather Channel, TBN, TV Land, and QVC. See <http://www.dishnetwork.com/content/programming/packages/index.shtml>.

<sup>753</sup> E-mail from Nancy Christopher, Vice President, Public Relations, Dominion Sky Angel DBS Television and Radio System, March 26, 2007.

### c. Sports Programming

222. We continue to monitor the availability of sports programming, which many MVPDs believe they must have to compete effectively in the video marketplace. Several commenters state that access to regional sports programming is essential to their ability to compete against incumbent cable operators. They indicate that they have experienced difficulties in obtaining regional sports programming as a result of the affiliation between regional sports and cable operators.<sup>754</sup> NTCA asserts that incumbent cable operators have entered into exclusive arrangements with regional sports programmers, making it difficult for competitors to obtain such programming.<sup>755</sup> Verizon argues that access to programming remains an issue for new entrants, particularly with respect to regional sports networks (“RSNs”).<sup>756</sup>

223. There are 43 regional networks devoted to sports programming, an increase from the 37 we identified last year.<sup>757</sup> Regional sports networks now represent approximately 42.6 percent of the 101 regional networks.<sup>758</sup> Of the 43 regional sports networks, 19, or 44.2 percent are vertically integrated with a cable MSO. Fox continues to be the leader in the distribution of regional sports networks, owning or holding an ownership interest in 19, or 44.2 percent, of all regional sports networks.<sup>759</sup>

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<sup>754</sup> AT&T Comments at 3, 14-15; DIRECTV Comments at 13-14; TDS Reply at 5-7; USTA Reply at 12; APPA Reply at 7-8; IMCC Reply at 6.

<sup>755</sup> NTCA Comments at 17-18.

<sup>756</sup> Verizon Comments at 29-30.

<sup>757</sup> See Appendix C, Table C-3. For purposes of this report, we count both Comcast Local (Detroit) and Comcast/Charter Sports Southeast as sports programming networks even though neither provides professional sports programming, except for professional women’s basketball. See <http://www.comcastlocal.com/> and <http://www.comcastlocal.com/> (visited Mar. 22, 2007). See also *Applications for Consent to the Assignment and/or Transfer of Control of Licenses, Adelpia Communications Corporation, Assignors to Time Warner Cable, Inc., Assignees, et al.*, 21 FCC Rcd 8203, 8209 (2006) n.32.

<sup>758</sup> See Appendix C, Table C-3.

<sup>759</sup> We note that 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 *General Motors Corporation and Hughes Electronics Corporation, Transferors And The News Corporation Limited, Transferee, For Authority to Transfer Control*, 19 FCC Rcd 473, 531-2, 543, 552-555, 626, ¶¶ 127, 147-48, 172-79, 366 (2004) (“News-Hughes Order”). In addition, News Corporation, The DIRECTV Group, Inc. and Liberty Media Corporation are currently seeking approval to transfer control of various Commission licenses and authorizations in connection with Liberty Media’s acquisition of News Corp.’s interest in DIRECTV. As part of the proposed transaction, Liberty Media would acquire a 100 percent ownership interest in three RSNs: Fox Sports Net Northwest, LLC, Seattle; Fox Sports Net Pittsburgh, LLC; and Fox Sports Net Rocky Mountain; Denver. See *News Corporation, The DIRECTV Group, Inc. and Liberty Media Corporation Seek Approval to Transfer Control of FCC Authorizations and Licenses: Pleading Cycle Established*, Public Notice, 22 FCC Rcd 3493 (MB 2007). See also *Application of News Corporation and The DIRECTV Group, Inc., Transferors, and Liberty Media Corporation, Transferee, For Authority to Transfer Control*, Consolidated Application for Authority to Transfer Control, Jan. 29, 2007 (“Consolidated Application”). In the Consolidated Application, Liberty states that it would agree to adopt the conditions mandated by the (continued....)

224. We report the emergence of several additional regional sports networks this year, including Channel 4 San Diego, MountainWest Sports Net, SportsNet New York, and SportTime Ohio.<sup>760</sup> We also note that TurnerSouth changed its name to SportsSouth.<sup>761</sup>

225. A dispute over carriage of sports programming arose following the Commission's approval of the Adelphia transaction. On August 1, 2006, NFL Enterprises filed a petition alleging that Time Warner violated Section 76.103 of the rules by dropping the NFL Network from cable systems that it had recently acquired from Adelphia and Comcast without the requisite 30-days' notice.<sup>762</sup> On August 3, 2006, the Commission instructed Time Warner to reinstate carriage of the NFL Network on all of its newly acquired systems, on a temporary basis, until the NFL's petition could be resolved on its merits.<sup>763</sup> Subsequently, the Media Bureau approved a Consent Decree with Time Warner and terminated the proceeding.<sup>764</sup>

226. In addition, on January 17, 2007, The America Channel filed a notice with Comcast of its intent to pursue arbitration under the RSN carriage condition of the *Adelphia Order*, in lieu of filing a program carriage complaint against Comcast. On January 24, 2007, Comcast filed a Petition for Declaratory Ruling with the Commission seeking a declaration that TAC is not a RSN as that term is defined in the *Adelphia Order*.<sup>765</sup> In its Response, TAC requests that the Commission find that TAC does meet the definition of RSN and direct Comcast to participate in arbitration to resolve TAC's program carriage complaint against Comcast.<sup>766</sup>

#### **d. News and Public Affairs Programming**

227. We requested comment on the extent to which MVPDs provide local news and

(Continued from previous page) \_\_\_\_\_  
Commission in the *News-Hughes Order* regarding access to the RSN programming controlled by Liberty Media. See Consolidated Application at 17-18.

<sup>760</sup> See Appendix C, Table C-3.

<sup>761</sup> *Id.*

<sup>762</sup> NFL Enterprises LLC, Emergency Petition for Declaratory Ruling and Enforcement Order, or in the Alternative, for Immediate Injunctive Relief (filed Aug. 1, 2006).

<sup>763</sup> *Time Warner Cable, A Division of Time Warner Entertainment Company, L.P.*, 21 FCC Rcd 8808 (MB 2006); *recon. denied*, 21 FCC Rcd 9016 (MB 2006).

<sup>764</sup> See *Time Warner Cable, A Division of Time Warner Entertainment Company, L.P.*, 21 FCC Rcd 8808 (MB 2006). In the absence of material new evidence relating to this matter, based on the record before us, in particular Time Warner's acknowledgement that its discontinuation of its carriage of the NFL Network without notification of its subscribers violated Section 76.1603, the Media Bureau concluded that there were no substantial or material questions of fact as to whether Time Warner possessed the basic qualifications to be or remain a Commission licensee.

<sup>765</sup> See Comcast, For Declaratory Ruling That The America Channel is Not a Regional Sports Network as That Term Is Defined in the Commission's *Adelphia Order*, CSR-7108 (filed Jan. 24, 2007). In the *Adelphia Order*, an RSN is defined as "any non-broadcast video programming service that (1) provides live or same-day distribution within a limited geographic region of sporting events of a sports team that is a member of Major League Baseball, the National Basketball Association, the National Football League, the National Hockey League, NASCAR, NCAA Division I Football, NCAA Division I Basketball and (2) in any year, carries a minimum of either 100 hours of programming that meets the criteria of subheading 1, or 10% of the regular season games of at least one sports team that meets the criteria of subheading 1." See *Adelphia Order*, 21 FCC Rcd at 8287 ¶¶ 190-91 and Appendix B.

<sup>766</sup> TAC Response, Exhibit D of Exhibit B.

community affairs programming because such programming allows MVPDs to provide a unique service that meets the interests and needs of their communities.<sup>767</sup> This year, of the 102 regional programming networks identified, 51, or 50 percent, are regional news networks.<sup>768</sup> A regional news network may concentrate on a single metropolitan area, as do NY1, the News 12 networks, Bay News 9, and News 8 Austin. They may originate their own content, or repurpose news content from co-owned broadcast channels. NewsChannel 5+ in Nashville, NewsWatch 15 in New Orleans, NewsChannel5 in San Diego, and News on One in Omaha are examples of the latter model. We also note that several regional news networks offer Spanish versions of their programming, including New York 1 Noticias, which offers NY1 Noticias; Bay News 9, which offers Bay 9 News en Español; and Arizona News Channel, which offers ¡Mas! Arizona.<sup>769</sup> News 8 Austin has added several 24-hour channels dedicated to such news events as weather, traffic, and sports.<sup>770</sup>

**e. Other Programming**

228. In the *Notice*, we requested comment on a variety of other types of programming, including PEG programming, DBS public interest programming, non-English programming, locally originated and community-oriented programming, and children's programming. MVPDs use these types of programming to compete more effectively and to serve specific groups in their local communities.<sup>771</sup>

229. **PEG Programming.** Many cable operators set aside one or more channels on a cable system for public, educational, and governmental ("PEG") programming. Generally, these channels provide programming produced by local government entities, community groups, and individuals. Local franchising authorities may request, as part of the franchising process, that operators devote a certain amount of channel capacity and equipment for this purpose.<sup>772</sup> These channels may be heavily used in some communities, while other communities may not seek PEG channels. In Minnesota, for example, LMC/MACTA explains that some LFAs require significant capacity for PEG channels or institutional networks, and others may seek little or none.

230. PEG channels are the pre-eminent examples of local programming, according to the Maryland Counties. They state that the allocation of resources for PEG channels is based on local needs and interests. NYC advocates the importance of PEG access channels and institutional networks, stating that public access channels bring residents borough-specific information and local programming that might not otherwise be available. Its educational and governmental channels are used for programming by the City University of New York and for C-SPAN-type coverage of city council and other local governmental proceedings.<sup>773</sup>

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<sup>767</sup> See *Notice*, 21 FCC Rcd at 12235 ¶ 15.

<sup>768</sup> See Appendix C, Table C-3.

<sup>769</sup> *Id.*

<sup>770</sup> *Id.*

<sup>771</sup> See *Notice*, 21 FCC Rcd at 12229 ¶ 15.

<sup>772</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>773</sup> *Id.*

231. **DBS Public Interest Programming.** DBS operators are required to reserve 4 percent of their channel capacity for “noncommercial programming of an educational or informational nature.”<sup>774</sup> To qualify for carriage on this reserved capacity, programmers must be organized for a noncommercial, nonprofit purpose; they must be a national educational programming supplier; and they must be responsible for 50 percent of the direct costs incurred by the DBS operator in making the programming available. Furthermore, the programming offered by such programmers must contain no advertisements, must be of an educational or informative nature, and must be available on a regular schedule.<sup>775</sup> EchoStar reports that it provides 21 channels of public interest programming.<sup>776</sup> DIRECTV provides 14 channels of public interest programming.<sup>777</sup>

232. **Non-English Programming.** Cable and DBS operators continue to add non-English language programming either as part of their general packages or as themed tiers. EchoStar states that it offers more than 125 international channels in more than 25 languages, including Arabic, Chinese, French, Hindi, Polish, Japanese, and Russian. EchoStar also now offers five DishLATINO packages ranging from a basic package offering 35 channels for \$24.99 to an Everything Pak that offers over 175 channels for \$79.99.<sup>778</sup> DIRECTV offers a wide variety of foreign language programming packages. Its WorldDirect platform consists of 45 channels that include programming in multiple languages, such as Russian, Hindi, Tamil, Telugu, Gujarati, Bengali, Cantonese, Vietnamese, Tagalog, Italian, and Ukrainian. During 2006, DIRECTV launched Polish, Arabic, Mandarin Chinese, and Korean language programming packages, and it continues to expand its international programming platform to reach more ethnic audiences. Prices for DIRECTV’s foreign language packages range from \$4.99 to \$39.99 per month, and certain foreign language channels are available on an a la carte basis for \$4.99 per month.<sup>779</sup>

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<sup>774</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).

<sup>775</sup> See 47 U.S.C. § 25.701.

<sup>776</sup> EchoStar currently carries the following public interest channels: Brigham Young University, Classic Arts Showcase, Colours TV, C-SPAN, Eternal World Network, Florida Educational Channel, Free Speech TV, Good Samaritan Network, Hispanic Information & Telecommunications Network, Holistic Television Network, KBS World, NASA TV, Northern Arizona University, Pentagon Research Channel, The Documentary Channel, Trinity Broadcasting network, University of California, University of Washington, and Worldlink TV. EchoStar Comments at 19. See also [http://www.dishnetwork.com/content/whats\\_on\\_dish/programming\\_packages](http://www.dishnetwork.com/content/whats_on_dish/programming_packages) (visited May 9, 2007). Following the Commission’s ruling that RFD-TV does not qualify as public interest programming for purposes of the Commission’s public interest requirements for DBS operators, EchoStar and DIRECTV, no longer count this network towards their public interest set aside. See *Farm Journal, Inc. Petition For Declaratory Ruling*, 21 FCC Rcd 14265 (2006) (finding that RFD-TV fails to qualify for carriage by DBS operators in fulfillment of their public interest obligations).

<sup>777</sup> DIRECTV currently carries the following public interest channels: World Harvest Television, C-SPAN 1, Daystar, Trinity Broadcasting Network, the WORD Network, BYU TV, Link TV, NASA TV, TCT, Once Mexico, EWTN, HITN, and NRB. See DIRECTV Comments at 7; <http://www.directv.com/DTVAPP/global/secondaryIndex.jsp?assetId+900012> (visited May 9, 2007). See also n.776 *supra*.

<sup>778</sup> EchoStar Comments at 23.

<sup>779</sup> DIRECTV Comments at 7.

233. Comcast reports that it offers a broad selection of Hispanic programming networks, including Discovery en Español, CNN en Español, and Toon Disney Español. It also states that in the past year it has launched several services catering to multicultural audiences and that, in total, Comcast carries more than 50 multicultural channels and plans to add several more in English or other languages.<sup>780</sup> On January 24, 2007, Cablevision launched iO International, a group of nine international language packages, which can be sent to viewers upon their request. This new technique, called switched video, allows operators to expand channel capacity by sending digital programming only when called for by subscribers.<sup>781</sup> These new packages range in cost from \$4.95 to \$29.95 per month, and are available to Cablevision's 2.3 million digital subscribers.<sup>782</sup> Comcast is testing a similar programming option and plans to deploy its switched video service in the second half of 2007, indicating that switched video will allow it to deliver more high-definition channels.<sup>783</sup>

234. ***Locally Originated and Community-Oriented Programming.*** APTS states that the nation's 361 local public television stations provide programming of interest to their communities. These stations, according to APTS, are owned and operated by local community foundations, colleges, universities and school districts, as well as locally responsive state commissions. APTS points out that one-quarter of public television stations' funding comes from individual donations and 15 percent is funded by the federal government. The remaining 60 percent is donated by businesses, state and local governments, local colleges and universities, and foundations. APTS further states that the programming that public television stations provide is responsive to the communities they serve because of the inherently local nature of these stations. Locally owned and controlled public broadcasting stations are models of local service to their communities, according to APTS, because they control their own programming content and schedules and tailor them to the interests of their communities.<sup>784</sup>

235. CBA states that Class A and LPTV station owners are a diverse group, and that these stations are often licensed to small communities or to serve niche audiences in larger communities. It notes that they are the only class of broadcast service required by statute to provide a minimal amount of locally produced programming. CBA states that these stations provide locally pinpointed information, including emergency information. CBA notes that almost all viewers of Class A and LPTV stations rely on over-the-air reception in the absence of must-carry rights.<sup>785</sup> To facilitate access to these stations, it urges the Commission to: (1) recommend that Congress repeal Section 614(e) of the Act, which required

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<sup>780</sup> Comcast Comments at 61.

<sup>781</sup> See Section IV, at ¶ 276.

<sup>782</sup> Cablevision Systems Corp., *iO Goes International with Launch of Diverse International Programming Services Across New York Metropolitan Area* (press release), Jan. 24, 2007.

<sup>783</sup> Todd Spanger, *Switching On Digital Video: Cablevision Does Big SDV Rollout; Test for Comcast*, MULTICHANNEL NEWS, Jan. 29, 2007, at 4; MULTICHANNEL NEWSWIRE, *Comcast Sets Switched Video Rollout*, at <http://www.multichannel.com/article/CA6410009> (visited Mar. 14, 2007).

<sup>784</sup> APTS Comments at 3-4.

<sup>785</sup> CBA Comments at 4-7.

the withdrawal of the A/B switch rule;<sup>786</sup> (2) recommend that Congress amend Section 325(b)(7)(B) of the Act that currently exempts Class A and LPTV stations from the reciprocal good faith retransmission consent bargaining requirements;<sup>787</sup> and (3) act on the petition filed by Venture Technologies Group proposing to apply the network nonduplication and syndicated exclusivity rules to Class A and LPTV stations.<sup>788</sup>

236. NAB states that broadcast stations remain a leading source of vital public safety information and local programming even for those households that subscribe to an MVPD service. It urges the Commission not to discount the important role that broadcasters play in the provision of local, diverse programming, as well as vital emergency information and alerts, to all television households, whether or not they subscribe to an MVPD service.<sup>789</sup>

237. Comcast reports using its VOD service to provide local content, including local public affairs programming and newscasts from local broadcast stations, in addition to providing movies and other entertainment offerings. In the Denver area, for example, Comcast is collaborating with 26 local municipalities to explore potential uses of new cable technology for their PEG access channels, including VOD, designed specifically to meet the needs of local communities and increase the value of community programming to television viewers. The resulting product, called *MetroBeat TV*, consists of viewer designed programming. Comcast also makes time available on its VOD service for local political candidates. During the 2006 election cycle, candidates in 70 of Comcast's local markets had an opportunity to use the service to reach Comcast subscribers with video messages ranging in length from two minutes to 30 minutes.<sup>790</sup>

238. ***Children's Programming.*** Cable television viewing continues to attract a growing audience among children and families. Total day viewing of cable television by children (ages 2-11) increased from a 33 share in 1993/1994 to a 73 share during the 2005/2006 television season.<sup>791</sup> Viacom reports that its networks serve a range of consumer interests, including Nickelodeon and Noggin for children.<sup>792</sup> In addition to providing traditional television content, Nickelodeon recently introduced Nicktropolis.com for children ages 6 to 14. It introduced this new web site with games and videos based on its original children's programming as a result of finding that more than 51 percent of children ages 8

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<sup>786</sup> 47 U.S.C. § 614(e). Previously, the Commission's rules required cable operators to make available input selector (A/B) switches to allow consumers to readily change between over-the-air reception and cable-delivered programming.

<sup>787</sup> 47 U.S.C. § 325(7)(B).

<sup>788</sup> See Venture Technologies Group, LLC, Petition for Rulemaking to Amend the Commission's Rules to Extend its Network and Non-Network Territorial Exclusivity, Syndicated Exclusivity, and Network Non-duplication Protection Rules to Low-power, Class A, and Noncommercial Broadcast Stations, RM 10335, filed Oct. 23, 2001.

<sup>789</sup> NAB Comments at 3-4.

<sup>790</sup> Comcast Comments at 64-65.

<sup>791</sup> Nielsen Media Research, *Share of Audience Report - Broadcast Calendar (TV Season)*, Dec. 31, 2006.

<sup>792</sup> Viacom, Inc., [http://www.viacom.com/view\\_brand.jhtml?inID=6&sectionid=2](http://www.viacom.com/view_brand.jhtml?inID=6&sectionid=2) (visited Jan. 31, 2007).

to 14 watch TV and videos online.<sup>793</sup> Noggin provides 12 hours daily (from 6 a.m. to 6 p.m.) of commercial-free educational programming designed to appeal to families with pre-school age children. Noggin also provides interactive programming for users with a special remote. At night, Noggin is replaced by The N, an ad-supported channel for teenagers.<sup>794</sup> Similarly, Nickelodeon shows programming originally shown on the broadcast networks intended for general audiences under the Nick-at-Nite name.<sup>795</sup> EchoStar reports that it offers BabyFirstTV, the nation's first and only channel dedicated to babies and toddlers, on an a la carte basis at a rate of \$9.99 per month.<sup>796</sup>

**f. Access to Programming by Persons with Disabilities**

239. We invited comment and information regarding the accessibility of closed captioning and video description to persons with disabilities.<sup>797</sup> In particular, we sought comment regarding the quality, accuracy, placement, technology, and instances of delayed or missing captioning. Currently, video programming distributors are required to caption 100 percent of all new English-language programming on each channel.<sup>798</sup> In addition, a video programming distributor must include captioning in 30 percent of its “pre-rule” English-language programming on each channel during each calendar quarter.<sup>799</sup> The phase-in schedule for “new” Spanish language programming currently requires distributors to caption at least 1350 hours of Spanish-language programming or all of its new non-exempt Spanish language

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<sup>793</sup> Geraldine Fabrikant, *Nickelodeon Begins a Web Site Focusing on Interactive Play*, NEW YORK TIMES, Jan. 30, 2007, at C-10.

<sup>794</sup> Viacom Reply at 2, 10; Viacom, Inc., at [http://www.viacom.com/view\\_brand.jhtml?inID=5000003&sectionid=2](http://www.viacom.com/view_brand.jhtml?inID=5000003&sectionid=2) (visited Jan. 31, 2007).

<sup>795</sup> Nick-at-Nite, <http://www.nick-at-nite.com> (visited Jan. 31, 2007). Examples of Nick-at-Nite programming include *Full House*, *Roseanne*, and the *Cosby Show*.

<sup>796</sup> EchoStar Comments at 6. EchoStar Satellite L.L.C. (DISH Network), <http://www.dishnetwork.com/content/programming/alacarte/index.shtml> (visited Jan. 31, 2007). Other programming networks offered by EchoStar on an a la carte basis are The Outdoor Channel, Lime, and Bloomberg television, which are sold at monthly rates of \$1.99, \$1.99, and \$1.50, respectively.

<sup>797</sup> Notice, 21 FCC Rcd at 12229 ¶ 25. In 1997, the Commission adopted phase-in schedules to increase the amount of closed captioned video programming over time. See *Closed Captioning and Video Description of Video Programming, Implementation of Section 305 of the Telecommunications Act of 1996, Video Programming Accessibility*, Report and Order, 13 FCC Rcd 3272 (1998); Order on Reconsideration, 13 FCC Rcd 19973 (1998). The Commission has a pending proceeding addressing the current status of closed captioning and seeking comment on whether revisions should be made to the rules. See *Closed Captioning of Video Programming, Telecommunications for the Deaf, Inc. Petition for Rulemaking*, 20 FCC Rcd 13211 (2005).

<sup>798</sup> 47 C.F.R. § 79.1(b)(1) (phase-in schedule for captioning “new” English language 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, Closed Captioning and Video Description of Video Programming, Implementation of Section 305 of the Telecommunications Act of 1996, Video Programming Accessibility*, 15 FCC Rcd 16788, 16808-09 ¶ 60 (2000) (“*Digital Captioning Order*”).

<sup>799</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).

programming per channel per quarter, whichever is less.<sup>800</sup> The rules also currently require each video programming distributor to caption 30 percent of its pre-rule non-exempt Spanish-language programming on each channel during each calendar quarter.<sup>801</sup> The rules exempt several specific classes of programming from the closed captioning requirements.<sup>802</sup> Video programming providers also may petition the Commission for an exemption from the closed captioning rules if the requirements would impose an undue burden.<sup>803</sup> The closed captioning rules are enforced through a complaint process, with the complaint initially directed to the video programming distributor responsible for compliance with the rules.<sup>804</sup>

240. The Commission also has rules that specifically address the accessibility of emergency information shown on television. There are no exemptions to these rules.<sup>805</sup> In the case of persons who are deaf or hard of hearing, Commission rules require that emergency information provided in the audio portion of the programming must be made accessible using closed captioning<sup>806</sup> or other methods of visual presentation, such as open captioning, crawls, scrolls, or appropriate signage<sup>807</sup> that appear(s) on the screen. In the case of persons with vision disabilities, emergency information that is provided in the video portion of a regularly scheduled newscast, in a newscast that interrupts regular programming, or in “crawls” or “scrolls” during regular programming must be made aurally accessible. The Commission has released Public Notices recently reminding the public of these rules, and explaining and clarifying the overlap these rules have with the closed captioning rules for some video programming distributors as of January 1, 2006.<sup>808</sup>

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<sup>800</sup> 47 C.F.R. § 79.1(b)(3)(iii).

<sup>801</sup> 47 C.F.R. § 79.1(b)(4)(i).

<sup>802</sup> 47 C.F.R. § 79.1(d).

<sup>803</sup> 47 C.F.R. § 79.1(f).

<sup>804</sup> 47 C.F.R. § 79.1(g).

<sup>805</sup> 47 C.F.R. § 79.2.

<sup>806</sup> As of January 1, 2006, the date upon which 100 percent of new nonexempt English language programming must be closed captioned, the major national broadcast television networks (*i.e.*, ABC, CBS, Fox and NBC), affiliates of these networks in the top 25 television markets, and national nonbroadcast networks serving at least 50 percent of all homes subscribing to multichannel video programming services must close caption (or open caption) the emergency information they air.

<sup>807</sup> See, *e.g.*, *Waterman Broadcasting Corp. of Florida, Inc., Licensee of WBBH-TV, Fort Myers-Naples, FL, Montclair Communications, Inc., Licensee of WZVN-TV, Fort Myers-Naples, FL*, 20 FCC Rcd 13534 (EB 2005); *ACC Licensee, Inc., Licensee of WJLA-TV, Washington, D.C.*, 20 FCC Rcd 9832 (EB 2005).

<sup>808</sup> *Reminder to Video Programming Distributors of Obligation to Make Emergency Information Accessible to Persons with Hearing or Vision Disabilities*, 21 FCC Rcd 7994 (CGB 2006); see also *Clarification of Obligation of Video Programming Distributors to Make Emergency Information Accessible to Persons with Hearing Disabilities Using Closed Captioning*, 21 FCC Rcd 9066 (CGB 2006); see also *Obligation of Video Programming Distributors to Make Emergency Information Accessible to Persons with Hearing Disabilities Using Closed Captioning*, 21 FCC Rcd 15084 (CGB 2006).

241. We also requested comment on the availability of video description currently provided by programmers on a voluntary basis.<sup>809</sup> Specifically, we requested information regarding the amount and types of video programming that includes video description and whether MVPDs generally carry video descriptions inserted by programmers.

242. APTS comments that public television stations have been instrumental in working with the disability community to ensure full access to educational programming. It states that public television was at the forefront of the development of captioning technology when it established the WGBH National Center for Accessible Media (“NCAM”) in 1971.<sup>810</sup> Today, nearly 100 percent of the PBS national programming service is closed captioned. APTS also comments that the descriptive video service (“DVS”) was first developed by public broadcasting through WGBH. According to APTS, NCAM’s DVS has described thousands of PBS programs as well as a variety of regular programming, special programs, and cinematic productions.<sup>811</sup>

243. DIRECTV again reports that it passes through all the analog closed captioning information. It states that its receivers have been tested for capability to receive HD programming with closed captions. With respect to video description, DIRECTV states that it carries the secondary audio program (“SAP”) channels of 99 nonbroadcast networks and 175 broadcast stations, although the use of these channels is determined by the programmer and it is not sure how much of what it passes through to viewers contains video descriptions.<sup>812</sup> EchoStar offers similar closed captioning and video description capabilities, although with some variation across receiver models.<sup>813</sup>

244. Panasonic states that it manufactures many products which provide enhanced accessibility features for persons with disabilities. These products include DTVs with a separate button on the remote control for accessing the SAP so that people with vision disabilities can navigate the video description without the use of a visual menu.<sup>814</sup> Panasonic also has announced that all of its digital cable-ready products will support closed captioning by using caption decoders compliant with the CEA-708 standard (*i.e.*, the technical standards for closed captioning of digital programming). Panasonic states that

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<sup>809</sup> 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. *See Implementation of Video Description of Video Programming*, 15 FCC Rcd 15230 (2000), on recon., 16 FCC Rcd 1251 (2001). 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. *See Motion Picture Association of America v. FCC*, 309 F.3d 796 (D.C. Cir. 2002).

<sup>810</sup> APTS Comments at 12. It also notes that public television was instrumental in establishing the National Captioning Institute.

<sup>811</sup> APTS Comments at 13.

<sup>812</sup> DIRECTV Comments at 5 n.17.

<sup>813</sup> *See* EchoStar, [http://tech.dishnetwork.com/departamental\\_content/TechPortal/content/tech/receiverhome.shtml](http://tech.dishnetwork.com/departamental_content/TechPortal/content/tech/receiverhome.shtml) (visited Feb. 21, 2007).

<sup>814</sup> Panasonic Comments at 12.

its recording products, such as DVD recorders, would support recording and playback of captioned content no later than March 1, 2007.<sup>815</sup>

### C. Other Competitive Issues

#### 1. Competitive Developments in Small and Rural Markets

245. In the *Notice*, we requested information and comment regarding issues specific to video programming distribution in rural and smaller markets.<sup>816</sup> Small cable operators and telephone companies have video subscribership ranging from 50 subscribers up to approximately 100,000 subscribers. In the aggregate, however, small cable operators and telephone companies serve a significant segment of the MVPD marketplace. For example, the ACA reports that its 1,100 members serve approximately 8 million subscribers. ACA notes that more than half of those members serve markets of fewer than 1,000 subscribers.<sup>817</sup> While their principal competitors remain DBS operators DIRECTV and EchoStar,<sup>818</sup> small cable operators and telephone companies often compete with each other in small and rural markets.<sup>819</sup> According to ACA, small MVPDs serve as a competitive check on larger MVPDs and, in some communities, as the only high-speed Internet access provider,<sup>820</sup> although they face growing competition from satellite broadband providers.<sup>821</sup> Small cable and telephone companies' chief competitive distinction from DBS operators is their origination of local content.<sup>822</sup>

246. MVPDs in small and rural markets consider access to must-have programming, including major national nonbroadcast networks and regional sports networks, on a timely basis and at competitive rates an important competitive issue. Small and rural cable operators and LECs that plan to offer video programming complain that securing access to programming is cumbersome and expensive.<sup>823</sup> Both

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<sup>815</sup> *Id.*

<sup>816</sup> *Notice*, 21 FCC Rcd at 12229 ¶¶ 21-22.

<sup>817</sup> ACA Comments at 3.

<sup>818</sup> *Id.* at 2.

<sup>819</sup> Michael Hopkins, *Small Cable: Looking for New Wave of Competition? Looking for a Level Playing Field*, THE BRIDGE, July 28, 2006, at 3-5. According to a survey conducted by OPATSCO, 49 percent of rural LECs reported competition with a cable operator, 67 percent with a DBS operator, and 12 percent with another telecommunications company. OPASTCO Reply at 4. *See also* NTCA Comments at 18.

<sup>820</sup> ACA Comments at 2-3. According to one small MVPD, Mediacom charges approximately \$12 less in its community than in nearby DMAs without competition. Hotchkiss Comments at 1.

<sup>821</sup> Ken Belson, *With a Dish, Broadband Goes Rural*, NEW YORK TIMES, Nov. 14, 2006, at C1.

<sup>822</sup> ACA Comments at 2-3; Viodi Reply at 7; OPASTCO Reply at 4 (noting that over 80 percent of rural telephone companies surveyed produce local content).

<sup>823</sup> Michael Hopkins, *Small Cable: Looking for New Wave of Competition? Looking for a Level Playing Field*, THE BRIDGE, July 28, 2006, at 8. According to a January 2006 ACA survey, independent MSOs' monthly programming costs range from thirty to eighty-five cents per subscriber, per station for retransmission consent fees. *Staying in Business: Typical Expenses for a Small MSO*, THE BRIDGE, July 28, 2006, at 6. Two respondents complained that their programming rates had increased as much as 70 and 84 percent over the last five years. *Programming, Retrans Costs... Ouch! Monthly Programming Costs per Home for Two Independent MSOs*, THE BRIDGE, July 28, 2006, at 1.

ACA and NTCA, a trade association representing more than 570 rural telecommunications providers, report that small providers' relatively small consumer bases translate into a lack of leverage in negotiations with video programmers. NTCA asserts that because lack of carriage on small systems has little negative impact on programmers' revenue streams, they can demand that small and rural video providers pay higher fees to carry broadcast stations.<sup>824</sup> NTCA states that its members who provide video service spend approximately 50 percent of their operating expenses for programming, adding that it expects that percentage to increase in the future.<sup>825</sup> APTS notes that it continues to negotiate with ACA regarding the digital carriage of local public broadcast stations on smaller cable systems.<sup>826</sup>

247. In addition, NTCA states that some of its members that have analog cable systems are being required to upgrade their facilities to digital in order to gain rights to carry certain programming.<sup>827</sup> Small MVPDs are further stymied by nondisclosure clauses in programmers' agreements with large MVPDs, which hinder access to market rate information,<sup>828</sup> and tying arrangements, by which a network requires an operator to carry as many as 12 additional networks in order to obtain a flagship network.<sup>829</sup> As a result, small and rural MVPDs report that they must charge more for their basic and expanded basic tiers and cannot offer programming packages tailored to their communities.<sup>830</sup> According to NTCA, large

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<sup>824</sup> NTCA Comments at 3-5, 10-11. *See also* BendBroadband Reply at 2, 5-6 (claiming that the full-power NBC affiliate in Bend, which uses one of its multicast streams for the CW Television Network and plans to use multicasting for Telemundo and a local news channel, is in the process of acquiring the local low-power stations affiliated with Fox and My Network TV. BendBroadband argues that this will give one station control of six of seven local commercial network affiliates through ownership of stations, and that it will use "its ability to control all of these networks and to tie them together in retransmission negotiations [to] extract virtually any price it wants, including per-subscriber cash payments that could be prohibitively high for a small market cable operator").

<sup>825</sup> NTCA Comments at 10. The general manager of one small MVPD states that he must spend approximately 55 percent of gross revenue on programming. Hotchkiss Comments at 1. We note that, in the 2005 Cable Price Survey Report, the Commission found that increases in programming expenses were equivalent to more than half of the overall increase in prices for the basic and expanded basic tiers. *See 2005 Cable Price Survey Report*, 21 FCC Rcd at 15088 ¶ 2.

<sup>826</sup> APTS Comments at 2. APTS reports that it already has an agreement with NCTA for such carriage on cable systems serving the vast majority of subscribers.

<sup>827</sup> NTCA Comments at 14-15. NTCA reports that one of its members provides analog cable television service to only 50 subscribers, and would be required to incur an expenditure of \$180,000-\$250,000 to upgrade its network to a digital platform, but the cost of the upgrade would require a substantial increase in rates that would put it at a disadvantage relative to DBS operators. *Id.* at 15.

<sup>828</sup> *Id.* at 11-12.

<sup>829</sup> *Id.* at 12. *See also* BendBroadband Reply at 2, 5-6.

<sup>830</sup> ACA Comments at 5. *See also* Hotchkiss Comments at 1. BendBroadband, a small-market cable operator in Oregon, states that as a result of higher programming charges and tying arrangements, "(1) [i]t would be forced to pass on these increased programming costs to its subscribers; (2) the quality of programming would diminish as BendBroadband is forced to replace more desirable cable programming with less appealing multicast programming streams demanded as a condition of carrying NBC and Fox; and (3) this would ultimately lead to a loss of subscribers as they decide that satellite or other alternative programming is both more desirable and more economical." BendBroadband Reply at 3.

MVPDs' ability to distribute costs allows them to drop their service charges below cost in an attempt to drive out competition from smaller market entrants,<sup>831</sup> and their larger subscriber bases afford them sufficient leverage to negotiate exclusive retransmission agreements with content providers.<sup>832</sup>

248. Many small cable operators purchase video programming through buying cooperatives, such as the National Cable Television Cooperative ("NCTC"), which represents approximately 1,100 independent cable operators serving approximately 10 million subscribers nationwide.<sup>833</sup> NCTC negotiates master agreements with programming networks, cable hardware and equipment manufacturers, and other service providers on behalf of its membership. Through NCTC, small cable operators receive volume discounts to which they would not be entitled on their own, although one NCTC member reports that their per-subscriber programming rates are still higher than those of MSOs of comparable size to NCTC.<sup>834</sup> On the other hand, small telephone companies that provide video service complain that they cannot benefit from participating in NCTC's master affiliation agreement, because the organization limits membership to companies that provide video service "primarily by means of a cable television system."<sup>835</sup>

249. Finally, small operators are concerned about difficulties in obtaining local franchises. According to OPASTCO, 68 percent of rural LECs provide video under a local franchise, but those that operate in multiple jurisdictions may face disparately high fees and resistance from large, incumbent cable operators.<sup>836</sup> At the same time, it notes that some states have eased access to statewide video franchises for new entrants, such as LECs, to the exclusion of incumbent cable operators, who therefore must continue to seek a video franchise from each local market.<sup>837</sup>

## 2. Competitive Developments in the MDU Market

250. Multiple dwelling units ("MDUs") comprise a separate segment of the MVPD marketplace because alternative video providers frequently have difficulty offering service in MDUs in competition with an incumbent provider, especially where the incumbent has a long-term exclusive contract with the building owner that prevents competitive entry.<sup>838</sup> Exclusive contracts are those that

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<sup>831</sup> NTCA Comments at 15-17.

<sup>832</sup> *Id.* at 17.

<sup>833</sup> NCTC, at <http://www.cabletvcoop.org>.

<sup>834</sup> PVT Comments at 2.

<sup>835</sup> NTCA Comments at 18 (citing NCTC's membership requirements).

<sup>836</sup> OPASTCO Reply at 3-4.

<sup>837</sup> Michael Hopkins, *Small Cable: Looking for New Wave of Competition? Looking for a Level Playing Field*, THE BRIDGE, July 28, 2006, at 7. One such state is Texas, which passed its video franchise reform bill in 2005; other states have applied their new rules equally to incumbents and new entrants. *Id.*

<sup>838</sup> The incumbent provider is not necessarily the incumbent cable operator. Private cable operators are the incumbent video provider for many MDUs. See PCO Section *supra*; see also *Telecommunications Services Inside Wiring, Customer Premises Equipment*, 22 FCC Rcd 10640 (2007). We note that a Commission proceeding regarding certain issues of inside and home run wiring is still pending. See *Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments*, 22 FCC Rcd 5935 (2007) ("MDU Notice"). See also *2004 Report*, 20 FCC Rcd at 2816-17 ¶¶ 111-112.

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). Several new entrants into the MVPD marketplace have raised concerns this year with these kinds of contracts, as they have for the past several years.<sup>839</sup>

251. These commenters identify long-term exclusive MDU access contracts as a barrier to entry. BSPA, for example, contends that long-term exclusive contracts are used as an “anticompetitive weapon” to prevent new entrants from competing with incumbents. This is particularly troublesome, it points out, where franchise conditions require the new entrant to build out to match the incumbent’s footprint, and the new entrant therefore is required to pass a number of MDUs, but cannot serve customers in those buildings due to the incumbent’s long-term exclusive contracts with the MDU owners.<sup>840</sup>

252. BSPA also states that the economics of system installation are such that BSPs cannot afford to provide service to MDUs unless they can offer three services: high-speed Internet access, telephony, and multichannel video services. APPA makes a similar point stating that many of today’s new broadband networks are being constructed based on a triple-play business model, *i.e.*, the sale of voice, video, and data services as a package; therefore, it is not cost effective to remove the video component from the mix because of an exclusive MDU agreement that prevents the new provider from offering video services. SureWest explains that these exclusive agreements lead to significant economic inefficiencies. As an example, SureWest provides broadband service as both a competitive local exchange carrier (“CLEC”) and an incumbent local exchange carrier (“ILEC”). In the ILEC case, its broadband service is provided over the same copper or fiber facilities as its legacy voice service. The voice service, however, is typically not subject to exclusive agreements. If a SureWest voice service subscriber resides in a building covered by an exclusive MVPD access agreement, then SureWest cannot use its existing facilities to provide video services to that customer, even though doing so would promote the efficient use of the network already in place, and SureWest would be willing to pass along the resulting economic efficiencies to its customers in the form of lower prices.<sup>841</sup>

253. BSPA states that, from the consumers’ perspective, an MDU resident may be locked into taking service from an older network with very limited capacity and no commitment to upgrade, while a fully upgraded service provider is available at the property boundary. SureWest states that exclusive MDU agreements are used primarily by incumbent cable operators to “lock up” large groups of customers and to prevent them from being able to choose their preferred MVPD. Although this foreclosure of choice clearly affects the options for video service available to consumers, it also affects the availability of high-speed Internet service and competitive telephone service that are provided by the same network. Verizon states that large numbers of consumers will be denied the benefits of competition if incumbent cable operators are able to preclude competitive entry into MDUs through exclusive agreements. Verizon

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<sup>839</sup> See, *e.g.*, BSPA Comments at 15-17; Verizon Comments at 24-28; USTelecom Comments at 3, 16-18; SureWest Comments at 2-8; APPA Reply at 11. See also *2005 Report*, 21 FCC Rcd at 2597 ¶ 208.

<sup>840</sup> BSPA Comments at 15. See also Verizon Comments at 24-25.

<sup>841</sup> BSPA Comments at 16; APPA Reply at 11; SureWest Comments at 4-5.

points out that approximately 30-35 percent of the U.S. population resides in MDUs, and that the adverse impact of widespread use of these agreements is “dramatic.”<sup>842</sup>

254. SureWest states that there have been several important changes in technology and in the marketplace since the Commission last looked at this issue. These changes include: (1) the advent of IP technology that makes possible a whole range of new services, if only the providers are allowed access; (2) more widespread packaging of video services together with high-speed Internet access and voice services, resulting in greater potential savings for consumers; and (3) the presence of an increased number of new competitors, as a result of changes in technology and new state-wide franchising laws in many states.<sup>843</sup> In view of these recent changes in the marketplace and in technology, as well as the significant adverse impact of long-term exclusive contracts on consumers and competitive providers alike, these commenters urge the Commission to revisit the MDU issue and consider adopting new rules that would prohibit MVPDs from executing new, or enforcing existing, MDU exclusive access agreements.<sup>844</sup>

255. In this regard, Comcast argues that the Commission is being asked to “overturn” its prior decision on this issue based “solely on anecdotes of isolated incidents.” Comcast states that the Commission has recognized that there are legitimate competitive benefits to exclusive access arrangements, and there is no evidence in this proceeding to suggest that the Commission should reconsider its previous findings.<sup>845</sup> NCTA asserts that the Commission has only recently conducted a lengthy rulemaking proceeding on the subject, and that the Commission ultimately concluded in that proceeding that the record did not support a prohibition on exclusive contracts for video services in MDUs.<sup>846</sup> In the absence of any new evidence of anticompetitive problems, NCTA concludes, the banning of MDU exclusive agreements would impair, not promote, fair marketplace competition.<sup>847</sup>

256. On March 27, 2007, the Commission released a Notice of Proposed Rulemaking seeking comment on the use of exclusive contracts for the provision of video service to MDU and other real estate developments in response to allegations that the use of exclusive contracts serves as a barrier to entry.<sup>848</sup> In the *MDU Notice*, we observed that greater competition in the marketplace for the delivery of video programming is one of the primary goals of federal communications policy. We also noted that, for many participants in the marketplace, the ability to offer video services to consumers and the ability to deploy broadband networks are linked intrinsically. Thus, the *MDU Notice* is designed to solicit comment on whether the use of exclusive contracts unreasonably impedes the achievement of the interrelated federal

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<sup>842</sup> BSPA Comments at 16; SureWest Comments at 6; Verizon Comments at 27.

<sup>843</sup> SureWest Comments at 6.

<sup>844</sup> BSPA Comments at 15-17; SureWest Comments at 7-8; Verizon Comments at 28; APPA Reply at 11; USTelecom Comments at 17.

<sup>845</sup> Comcast Reply at 40.

<sup>846</sup> See *Implementation of the Cable Television Consumer Protection and Competition Act of 1992: Cable Home Wiring*, 18 FCC Rcd 1342, 1367-68, 1370 (2003); Letter from Daniel L. Brenner, Senior Vice President, Law and Regulatory Policy, NCTA, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 05-311 (Sept. 8, 2006) (regarding access arrangements with owners of MDUs) (“*NCTA Sept. 8, 2006 Ex Parte Letter*”).

<sup>847</sup> *NCTA Sept. 8, 2006 Ex Parte Letter* at 4.

<sup>848</sup> See *MDU Notice supra* note 838.

goals of enhanced MVPD competition and accelerated broadband deployment, and, if so, how the Commission should act to address that problem.<sup>849</sup> Specifically, the *MDU Notice* seeks comment on: (1) the current environment for service providers attempting to obtain access to MDUs or other real estate developments, including the use of exclusive contracts; (2) the impact of exclusive contracts on consumer choice and video competition, and whether the use of exclusive contracts reduces the likelihood of competitive entry; (3) a tentative conclusion that the Commission has authority to regulate exclusive contracts for the provision of video services to MDUs and other real estate developments where it finds that such contracts may impede competition and impair deployment of those services; and (4) what specific steps the Commission should take to ensure that exclusive contracts do not unreasonably impede competitive video entry .

### 3. Competitive Developments in Alaska and Hawaii

257. We sought comment on cable, DBS, and alternative MVPD services offered in Alaska and Hawaii, and information on the extent to which services differ from those provided in the 48 contiguous states. We also requested information on each type of MVPD, including pricing, programming, necessary equipment, and market share.<sup>850</sup> The State of Hawaii reports that DBS services provide the primary competition to incumbent cable networks in Hawaii, as they do in most other states.<sup>851</sup> Although it does not have data on the number of DBS subscribers in Hawaii, the State of Hawaii suggests that DBS penetration is lower in Hawaii than in the rest of the country.<sup>852</sup> We concur with the State of Hawaii, and observe that DBS penetration in that state is 4.65 percent and in Alaska it is 10.33 percent, compared to an average DBS penetration of 24.83 percent in the 48 contiguous states.<sup>853</sup>

258. The State of Hawaii contends that DIRECTV's subscriber levels are particularly low for a number of reasons. It indicates that distribution of DIRECTV's service is limited to independent retailers that are not as highly accessible as national retail chains used in other states.<sup>854</sup> Moreover, according to the State of Hawaii, an informal survey of the DIRECTV retailers indicates that consumers are more likely to purchase EchoStar's service.<sup>855</sup> The State of Hawaii attributes DIRECTV's difficulties

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<sup>849</sup> See 47 U.S.C. § 521(6) (stating that one of the purposes of Title Vi is "to promote competition in cable communications") and 47 U.S.C. § 157, nt. (incorporating section 706 of the Telecommunications Act of 1996, Pub.Law No. 104-104, 110 Stat. 56 (1996) (stating that the Commission shall promote competition in the local telecommunications market and shall remove barriers to infrastructure investment).

<sup>850</sup> *Notice*, 21 FCC Rcd at 12238 ¶ 23.

<sup>851</sup> State of Hawaii Comments at 1.

<sup>852</sup> *Id.* at 1-2.

<sup>853</sup> CentrisBRIDGE at <http://online.centrisplus.com> (visited Mar. 27, 2007). As of June 30, 2006, the average cable penetration was 56.77 percent in the 48 contiguous states compared to 81.38 percent in Hawaii and 45.06 percent in Alaska.

<sup>854</sup> State of Hawaii Comments at 2. See also State of Hawaii Petition for Administrative Sanctions of the State against DIRECTV Holdings, LLC, DIRECTV Enterprises, Inc., and USSB II, Inc., MB Docket No. 03-83 (filed Feb. 6, 2003); *Request for Comment on Petitions Regarding DIRECTV's DBS Service to the States of Alaska and Hawaii*, 18 FCC Rcd 5501(MB 2003).

<sup>855</sup> State of Hawaii Comments at 2.

in marketing its service in the state to the reception equipment that must be used. It states that subscribers in Hawaii must install a 1.2 meter antenna to receive basic DIRECTV packages that may include local channels and a second 1.2 meter antenna for HDTV or foreign language channels. State of Hawaii claims that installation of the equipment may be unattractive and burdensome for single family homeowners. It also notes that about half of the state's population lives in multi-family housing, where installation of a 1.2 meter antenna may be physically difficult or prohibited because the over-the-air reception device ("OTARD") regulations do not protect antennas greater than 1.0 meters in diameter.<sup>856</sup> The State of Hawaii concludes that in order for its residents to enjoy true MVPD competition, both major DBS licensees must make an effort to provide comparable service to that offered on the mainland, in terms of the necessary equipment and the marketing of the service through major retail outlets.<sup>857</sup>

259. We note that EchoStar's reception equipment may be even larger than DIRECTV's, requiring a 1.5 meter dish in some locations, although independent retailers may provide equipment as small as 24 inches when appropriate.<sup>858</sup> In large cities in Alaska and Hawaii, retailers provide a 30- or 36-inch antenna; however, subscribers in Alaska must use an additional 1.2 meter dish for HD services.<sup>859</sup> EchoStar also requires a second receiver for extended channels, and is unable to carry some public interest and international channels.<sup>860</sup> We note that EchoStar also relies on independent retailers for equipment and installation, but offers unique services tailored to both Alaska and Hawaii that may also include high-speed Internet access.<sup>861</sup> In addition, EchoStar reports that it continues to expand its service, most recently by launching a new HD Pak in the Alaska and Hawaii markets.<sup>862</sup>

260. DIRECTV states that it offers the same national and local-into-local programming in Alaska and Hawaii that is available in the rest of the country.<sup>863</sup> However, it asserts that regulatory obstacles create competitive disadvantage in the Alaska and Hawaii markets. It maintains the SHVERA requirement that DBS operators must carry the multicast and HD signals of broadcast stations in Alaska

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<sup>856</sup> State of Hawaii, Comments at 3. We note that elsewhere in the United States, DIRECTV offers a standard 0.5 meter (18 inches) dish for DBS services. *See* DIRECTV, <http://directv.com/DTVAPP/customer/faqPage.jsp?assetId=1100116#category5> (visited Jan. 22, 2007). The OTARD rule prohibits governmental and nongovernmental restrictions on viewers' ability to receive video programming signals from DBS service, BRS providers, and television broadcast stations. The rule applies to direct-to-home satellite dishes that are less than one meter in diameter (or of any size in Alaska), TV antennas, and wireless cable antennas. It, however, allows local governments, community associations, and landlords to enforce restrictions that do not impair the installation, maintenance, or use of antennas as well as restrictions needed for safety and historic preservation. *See* 47 C.F.R. § 1.4000.

<sup>857</sup> State of Hawaii Comments at 4-5.

<sup>858</sup> DISH Network, <http://www.dishnetwork.com/content/faq/search/about/> (visited Jan. 23, 2007).

<sup>859</sup> Jack Walda Electronics, Lihue Hawaii, 808-245-3321 (accessed Jan. 30, 2007). *See Also* Microcom, Anchorage Alaska, 907-2643474 (visited Jan. 30, 2007).

<sup>860</sup> DISH Network, at <http://www.dishnetwork.com/content/programming/packages/alaska/index2.shtml> (visited Jan. 23, 2007).

<sup>861</sup> DISH Network, at <http://www.dishnetwork.com/content/getdish/index.shtml> (visited Jan. 23, 2007).

<sup>862</sup> EchoStar Comments at 20.

<sup>863</sup> DIRECTV Comments at 20.

and Hawaii unduly burdens DBS as compared to other MVPDs, and it urges the Commission to reconsider this requirement.<sup>864</sup> DIRECTV claims that must-carry regulation in Alaska and Hawaii results in a sixfold increase in used capacity, and requires the elimination of some national channels, or the curtailment of local-into-local service.<sup>865</sup> NAB disagrees and states that DBS systems are not disadvantaged by carrying the required number of digital signals into Alaska and Hawaii. It notes that it has demonstrated that such carriage uses only 2.34 percent of DIRECTV's current capacity for the two states and that the Spaceway satellites were designed with the capacity to serve both states without diverting capacity that would be used for other national or local service.<sup>866</sup>

#### IV. TECHNICAL ISSUES

261. Technological developments are integral to the state of video competition. Accordingly, we report on a number of developments in this area that affect the manner and state of competition. We examine technological, regulatory, and marketplace developments that have affected, and will affect, competition in the future.

##### A. Navigation and Reception Devices

262. **Tuner Mandate.** In 2002, the Commission initiated a requirement that televisions with analog tuners also must contain DTV tuners, with a phase-in period based on screen size.<sup>867</sup> In 2005, the Commission accelerated and expanded the DTV tuner mandate. As a result, beginning March 1, 2007, all broadcast television receivers, regardless of size, as well as television reception devices (*e.g.* VCRs and DVRs) had to include a DTV tuner.<sup>868</sup> The Commission made these changes to increase DTV tuner penetration, ensure greater commercial availability, and ensure that consumers' expectations are met.

263. **CableCARDS.** In 2003, the Commission adopted rules that allow television sets to be built with "plug-and-play" functionality for one-way digital cable services, which include typical cable video services and premium channels, such as HBO and Showtime.<sup>869</sup> For these services, consumers are able to plug their cable directly into their digital television set without the need for a set-top box. Consumers, however, must obtain a security card (often called a CableCARD) from their local cable operator to be inserted into the television set. Consumers need a set-top box to receive two-way services (*e.g.*, video-on-demand). The cable and consumer electronics industries continue to work on an

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<sup>864</sup> *Id.* at 19-20.

<sup>865</sup> *Id.* at 19-20.

<sup>866</sup> NAB Reply Comments at 9-10. *See also* Opposition of NAB to Petition for Reconsideration, MB Docket No. 05-181 (filed Dec. 8, 2005) at 4-6.

<sup>867</sup> *Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 17 FCC Rcd 15978 (2002).

<sup>868</sup> *Requirements for Digital Television Receiving Capability*, 20 FCC Rcd 11196 (2005).

<sup>869</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).

agreement for two-way “plug-and-play” functionality.<sup>870</sup> Recent work on downloadable security systems may serve as an alternative to CableCARDS.<sup>871</sup>

264. CableCARD development and deployment increased in 2006. CableCARDS currently permit the reception of one-way digital cable programming via commercially available devices (*i.e.*, without using a cable operator-supplied set-top box). As of March 26, 2007, more than 259,000 CableCARDS had been deployed by cable operators, up from 90,000 the previous year.<sup>872</sup> As of March 15, 2007, 548 models of Unidirectional Digital Cable Ready Products (“UDCPs”) had been verified for use with CableCARDS.<sup>873</sup> By June 2006, both major conditional access vendors, Motorola and Scientific Atlanta, had qualified multi-stream CableCARDS with CableLabs.<sup>874</sup> Testing procedures were established for multi-stream CableCARDS and CableLabs began testing of UDCPs in January 2007.<sup>875</sup> CEA has expressed concerns that the deployment of switched digital video<sup>876</sup> reduces the value of UDCPs, accelerating the need to achieve an agreement on two-way CableCARD use.<sup>877</sup>

265. **Integration Ban.** In order to promote a competitive market for set-top boxes, the Commission in 1998 required MVPDs to separate security in their leased devices and rely on the same conditional access mechanism that consumer electronics manufacturers use (commonly referred to as “common reliance”).<sup>878</sup> The integration ban originally was set to go into effect on January 1, 2005, but was extended twice, first to July 1, 2006, and ultimately to July 1, 2007, at the urging of cable

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<sup>870</sup> For a description of the progress of negotiations between the consumer electronics and cable industries, see Consumer Electronics Association, *CS Docket No. 97-80: Joint Status Report of the Consumer Electronics Association and the National Cable & Telecommunications Association*, May 31, 2006, at [http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6518353757](http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518353757) (visited Jan. 25, 2007). See also CableLabs, *2007 CES Featured Cable’s Two-Way Future; High Definition Cable Content Now Available on PCs* (press release), Jan. 24, 2007.

<sup>871</sup> See Ted Hearn, *Set-Top-Box Vendor Claims Downloadable MediaCipher Will Satisfy FCC Rules*, MULTICHANNEL NEWS, Mar. 23, 2007.

<sup>872</sup> NCTA Comments, CS Docket No. 97-80, filed Mar. 26, 2007 (“*Q1 2007 CableCARD Status Report*”); NCTA Comments, CS Docket No. 97-80, filed Dec. 29, 2005.

<sup>873</sup> *Q1 2007 CableCARD Status Report*.

<sup>874</sup> *Id.*

<sup>875</sup> *Id.*

<sup>876</sup> Switched digital video is a two-way service that allows cable operators to conserve bandwidth by providing less popular channels only on demand. To consumers using a leased set-top box, the channel appears like any other linear channel, but it cannot be received on a UDCP.

<sup>877</sup> See, e.g., Letter from Julie Kearney, Senior Director and Regulatory Counsel for Consumer Electronics Association, to Marlene H. Dortch, Secretary, FCC, CS Docket 97-80 (Nov. 30, 2005).

<sup>878</sup> *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 13 FCC Rcd 14775, 14808 ¶ 80 (1998); 47 C.F.R. § 76.1204(a)(1) (“*First Navigation Report and Order*”).

operators.<sup>879</sup> In 2006, the D.C. Circuit Court of Appeals upheld the integration ban against a challenge by the cable industry.<sup>880</sup>

266. In the *2005 Deferral Order*, the Commission stated that it would entertain waivers of the integration ban for low-cost, limited-capability devices.<sup>881</sup> A number of requests for waiver of the deadline for complying with the integration ban have been filed with the Commission.<sup>882</sup> On January 10, 2007, the Media Bureau ruled on three of these requests.<sup>883</sup> The Bureau granted Cablevision's request for a limited waiver of the integration ban for their set-top boxes, which rely on a different security card – a SmartCard – for separated security instead of the CableCARD.<sup>884</sup> The Bureau also granted a waiver request filed by Bend Broadband, seeking waiver of the ban on integrated set-top boxes, conditioned on Bend's migration to an all-digital network by 2008.<sup>885</sup> Finally, the Bureau denied Comcast's request for a permanent waiver from the integration ban for certain boxes that the Bureau found not to be the type of low-cost, limited capability boxes envisioned by the Commission in the *2005 Deferral Order*.<sup>886</sup> The Commission upheld the Bureau's decision in denying Comcast's application for review of the Bureau's decision.<sup>887</sup>

267. **Downloadable Conditional Access.** In the *2005 Deferral Order*, the Commission stated that one of the reasons for extending the deadline for compliance with the integration ban until July 1, 2007, was to provide cable with additional time to determine whether downloadable conditional access was feasible as an alternative to CableCARD, and if so, to provide a timeline for deployment.<sup>888</sup> In 2005, Comcast hosted two demonstrations of downloadable conditional access involving Motorola, Comcast,

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<sup>879</sup> *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 18 FCC Rcd 7924, 7926 ¶ 4 (2003); *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 20 FCC Rcd 6794, 6802-03 ¶ 13 (2005) (“*2005 Deferral Order*”).

<sup>880</sup> *Charter Communications Inc. v. FCC*, 460 F.3d 31 (D.C. Cir. 2006). Comcast and other cable operators continue to assert that the integration ban “will result in substantial public harms with no countervailing public benefit.” Comcast Comments at 38.

<sup>881</sup> *2005 Deferral Order*, 20 FCC Rcd at 6814 ¶ 31..

<sup>882</sup> To date, the Commission has received 40 such requests.

<sup>883</sup> See Federal Communications Commission, *Media Bureau Acts on Requests for Waiver of Rules on Integrated Set-Top Boxes and Clarifies Compliance of Downloadable Conditional Access Security Solution* (press release), Jan. 10, 2007.

<sup>884</sup> See *Cablevision Systems Corporation's Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, 22 FCC Rcd 220 (MB 2007).

<sup>885</sup> See *Bend Cable Communications, LLC d/b/a BendBroadband Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, 22 FCC Rcd 209 (MB 2007).

<sup>886</sup> See *Comcast Corporation Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, 22 FCC Rcd 228 (MB 2007).

<sup>887</sup> See *Comcast Corporation Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, 22 FCC Rcd 17113 (MB 2007).

<sup>888</sup> *2005 Deferral Order*, 20 FCC Rcd at 6795 ¶ 3.

Nagravision, and Samsung.<sup>889</sup> On November 30, 2005, NCTA submitted its report on downloadable security, containing a detailed timeline for its development and deployment.<sup>890</sup> At least two major efforts to promote downloadable security are underway. The first involves Comcast, Time Warner, and Cox, which have started a joint venture to develop downloadable security called PolyCipher.<sup>891</sup> The second concerns Beyond Broadband Technology (“BBT”), which was formed by three smaller cable operators to develop a downloadable security solution.<sup>892</sup> BBT reports that an open standard low-cost solution for separated security will be available in time to comply with the July 1, 2007 ban on integrated security devices. On January 10, 2007, the Commission noted that, “consistent with the Commission’s goal of ‘common reliance,’ BBT is offering its technology on an ‘open standard’ basis . . . to all CE and set-top box manufacturers.”<sup>893</sup>

268. **Two-Way Plug-and-Play.** Although the cable and consumer electronics industries continue to negotiate an agreement to provide two-way (*i.e.*, interactive) cable functionality in consumer electronics devices,<sup>894</sup> no major new developments were announced in the last year.<sup>895</sup> CableLabs has established a private negotiation process by which individual consumer electronics manufacturers may develop devices that include two-way functionality using the OpenCable Applications Platform (“OCAP”).<sup>896</sup> Several manufacturers have signed the requisite agreements to do so, with Comcast and Time Warner committing to begin deployment of OCAP on their systems.<sup>897</sup> In May 2007, four cable

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<sup>889</sup> Letter from James L. Casserly, Counsel for Comcast, to Marlene H. Dortch, Secretary, FCC, CS Docket 97-80 (July 18, 2005); Letter from James L. Casserly, Counsel for Comcast, to Marlene H. Dortch, Secretary, FCC, CS Docket 97-80, (Nov. 30, 2005).

<sup>890</sup> Letter from Daniel L. Brenner, Senior Vice President for NCTA, to Marlene H. Dortch, Secretary, FCC, CS Docket 97-80 (Nov. 30, 2005). We note that while this timeline anticipated nationwide deployment by July 1, 2008, in its request for waiver of the deadline for compliance with the integration ban, NCTA stated that it needed until December 31, 2009, to deploy its downloadable conditional access system. NCTA, Request for Waiver of 47 C.F.R. § 76.1204(a)(1), CSR-7056-Z (filed Aug. 16, 2006).

<sup>891</sup> Jeff Baumgartner, *PolyCipher Key to Cable’s Downloadable Conditional Access Effort*, CED BROADBAND DIRECT, Aug. 17, 2006, at <http://www.cedmagazine.com/article/CA6363598.html> (visited Feb. 2, 2007).

<sup>892</sup> Letter from Seth A. Davidson, Counsel for Beyond Broadband Technology LLC, to Marlene H. Dortch, Secretary, FCC, CS Docket 97-80 (Dec. 22, 2006).

<sup>893</sup> *Commission Reiterates That Downloadable Security Technology Satisfies the Commission’s Rules on Set-Top Boxes and Notes Beyond Broadband Technology’s Development of Downloadable Security Solution*, Public Notice, 22 FCC Rcd 244 (MB 2007).

<sup>894</sup> 47 U.S.C. 544a, 47 U.S.C. 549. See also *First Navigation Report and Order*.

<sup>895</sup> Letter from Neal M. Goldberg, General Counsel, National Cable and Telecommunications Association and Julie M. Kearney, Senior Director and Regulatory Counsel, Consumer Electronics Association, to Marlene H. Dortch, Secretary, FCC, CS Docket 97-80 (Nov. 29, 2006). See also *2005 Report*, 21 FCC Rcd at 2600-01 ¶¶ 215-18.

<sup>896</sup> *Amended and Restated Nonexclusive CableCARD-Host Interface License Agreement (Apr. 18, 2006)*, at <http://www.opencable.com/downloads/CHILA.pdf>.

<sup>897</sup> See CableLabs, *CableLabs Certifies LG Electronics’ OCAP-Based, Two-Way Digital Television* (press release), Jan. 9, 2007; See also, CableLabs, *Cable Television Industry Voices Support for OCAP and Two-Way Digital Cable-Ready Product Deployments* (press release), Jan. 5, 2006.

operators (Comcast, Time Warner, Cox, and Bright House) announced that they will be upgrading system headends to support digital boxes embedded with OCAP middleware and expect to start shipping OCAP-enabled digital set-tops to their cable systems for deployment during summer 2007.<sup>898</sup>

269. While OCAP enables two-way functionality and other advanced interactive functionality, some manufacturers are reluctant to implement OCAP. This is so for a variety of reasons, including their desire to maintain control over the user interface and experience and issues regarding the sharing of resources within devices.<sup>899</sup> In November 2006, CEA presented an alternative means of achieving limited interactivity to provide support for video-on-demand, interactive program guides, and switched digital broadcast called DCR+.<sup>900</sup> DCR+ proposes to use standard protocols to send messages between the host device and CableCARD and uses the CableCARD to translate standard commands to proprietary cable operator protocols. Verizon also has voiced concern with the cable two-way plug-and-play solution because of the difference between the architectures of Verizon and other cable operators; it advocates instead an open standards approach.<sup>901</sup>

## B. Emerging Technologies

270. ***Distributed Transmission Systems for Digital Television (“DTS”)***. A DTV station employing a distributed transmission system uses multiple synchronized transmitters, each on the same channel, spread around its service area. DTV receivers contain “adaptive equalizer” circuitry that combines the signals from the multiple transmitters plus any reflected signals to produce a single signal. DTS operation is similar to analog TV booster stations, a secondary, low-power service using the parent station’s channel to “fill in” gaps in its coverage area, but DTS technology may enable this type of operation more efficiently than analog TV boosters.<sup>902</sup> In the *Second DTV Periodic Report and Order*, the Commission approved, in principle, the use of DTS.<sup>903</sup> The Commission issued a *Notice of Proposed Rulemaking* in November 2005 to examine several policy issues related to the use of DTS.<sup>904</sup> The Commission proposed rules that would permit an existing authorized broadcast DTV station to use DTS to expand its service area after the establishment of a post-transition DTV Table of Allotments and the lifting of the current freeze on the filing of most applications. In addition, the Commission issued a *Clarification Order* with respect to the authorization of interim DTS operations as permitted in the

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<sup>898</sup> *Four Top Cable MSOs Say They Plan to Launch OCAP*, COMM. DAILY, May 8, 2007, at 8.

<sup>899</sup> See CEA Comments at 12.

<sup>900</sup> Letter from Michael T. Williams, Executive Vice President, Secretary, and General Counsel, Sony Electronics, Inc., et al., to Kevin J. Martin, Chairman, FCC, CS Docket 97-08 (Nov. 7, 2006).

<sup>901</sup> Letter from Paul Brigner, Executive Director, Federal Regulatory, Verizon, to Marlene H. Dortch, Secretary, FCC, CS Docket 97-80 (July 10, 2006). See also Verizon Reply at 6.

<sup>902</sup> The Commission’s Spectrum Policy Task Force recommended that DTV broadcasters be permitted to operate distributed transmission systems within their present service areas. See *Spectrum Policy Task Force Report*, ET Docket No. 02-135 (Nov. 2002), available at <http://www.fcc.gov/sptf/reports.html>.

<sup>903</sup> *Second Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television*, 19 FCC Rcd 18279, 18283, 18355-57 ¶¶ 9, 174-78 (2004) (“*Second DTV Periodic Report and Order*”).

<sup>904</sup> *Digital Television Distributed Transmission System Technologies*, 20 FCC Rcd 17797 (2005).

*Second DTV Periodic Report and Order.*<sup>905</sup> Those interim authorizations continue to be available for DTV stations prior to the completion of the DTS rulemaking proceeding.

271. ***Advancements in Digital Broadcasting.*** Broadcasters continue to improve their service and offerings through enhancements to digital Vestigial Sideband Broadcasting (“VSB”), called Enhanced VSB (“E-VSB”) and Advanced VSB (“A-VSB”). E-VSB was approved by the ATSC (American Television Standards Committee) in July 2004, as an amendment to the standard that allows broadcasters to choose between bit rates and added robustness without impeding HDTV.<sup>906</sup> Possible uses of the technology include applications such as robust data broadcasting to desktops or transmissions of file-based information to handheld receivers, and “fallback” audio.<sup>907</sup> However, E-VSB adoption has been slow due to a lack of demand and a lack of E-VSB enabled receivers.<sup>908</sup> A-VSB is another amendment being proposed to the ATSC for mobile video applications. ATSC has accepted the proposal of A-VSB but it has not yet reached the “candidate standard” stage,<sup>909</sup> which involves more exacting technical review.<sup>910</sup> The A-VSB system, proposed by Rohde & Schwartz, allows for signals to be distributed with a single high-power transmitter or via a network of smaller transmitters surrounding a coverage area and will not interfere with the current ATSC signals.<sup>911</sup> Samsung is working closely with Rohde & Schwartz and has agreed to make the necessary receiving devices available by December 2007.<sup>912</sup>

272. ***Networking and Content Mobility.*** The concept of interactive television continues to hold great promise for video programming providers. In 2006, the advancement of technology continued to bring the potential of interactive television to consumers through a variety of media. Home networking allows consumers to connect multiple devices in the home (*e.g.*, set-top boxes, television sets, personal

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<sup>905</sup> *Id.*

<sup>906</sup> Broadcast Engineering, *Real-world Test Detail Reliable E-VSB Performance*, May 1 2006, at <http://broadcastengineering.com/news/evsb-performance-test-20060501/> (visited Jan. 29, 2007). A higher bit rate enables the broadcaster to transmit more data but limits the receivable range of the signal. Lowering the bit rate reduces the amount of data that can be sent, but increases the distance at which the data can be received.

<sup>907</sup> “Fallback audio” is a more robust audio stream used if the primary audio stream is unavailable due to signal degradation or other circumstances. Advanced Television Systems Committee, *ATSC Approves Enhancements to DTV Standard* (press release), July 20, 2004.

<sup>908</sup> Claudia Kienzle, *E-VSB in Search of a Market*, TV TECHNOLOGY, Apr. 24, 2006, at [http://www.tvtechnology.com/features/news/2006.04.24-n\\_E\\_VSB\\_in\\_search.shtml](http://www.tvtechnology.com/features/news/2006.04.24-n_E_VSB_in_search.shtml) (visited Jan. 29, 2007).

<sup>909</sup> A Candidate Standard is a document that has received significant review within a specialist group. Advancement of a document to Candidate Standard is an explicit call to those outside of the related specialist group for implementation and technical feedback. See The Advanced Television Systems Committee, *Candidate Standards*, [http://www.atsc.org/standards/candidate\\_standards.html](http://www.atsc.org/standards/candidate_standards.html) (visited Feb 7, 2007).

<sup>910</sup> Doug Lung, *NAB RF Reflections: A-VSB and DTx*, TV TECHNOLOGY, June 14, 2006 at [http://www.tvtechnology.com/features/On-RF/2006.06.14-f\\_Doug\\_Lung.shtml](http://www.tvtechnology.com/features/On-RF/2006.06.14-f_Doug_Lung.shtml) (visited Jan. 29, 2007).

<sup>911</sup> Broadcast Engineering, *Mobile Video is on the Way*, May 1 2006, at <http://broadcastengineering.com/news/Mobile-video-here-20060501> (visited Jan. 29, 2007).

<sup>912</sup> *Id.*

computers, video game consoles) with each other and to the Internet. Companies such as Verizon<sup>913</sup> and AT&T<sup>914</sup> are looking to technologies from standards groups such as the Multimedia over Coax Alliance (“MoCA”),<sup>915</sup> Home Phoneline Networking Alliance (“HomePNA”),<sup>916</sup> and HomePlug<sup>917</sup> to utilize existing wires in the home to carry networking signals. Current wireless networks, using the 802.11b/g technical standard, typically have lower throughput than wired networks and are subject to interference from other wireless devices.<sup>918</sup> These networks can have difficulty carrying a single HD video stream. A new wireless standard under development intended to address the throughput issue is IEEE 802.11n.<sup>919</sup> The 802.11n standard has not been finalized, but devices have been built based on draft versions of this standard and are currently available at retail (e.g., the Linksys WRT300N Wireless-N Broadband Router). The standard is targeted to have an estimated maximum throughput of 600 Mbps and should be capable of carrying multiple HD video streams simultaneously, allowing a wireless network to be a practical solution for moving video content around the home.

273. Multi-room DVR service, which allows programming recorded by one DVR to be accessed by other set-top boxes in the home, continues to be provided by cable operators. TivoToGo performs a similar function with Tivo Series 2 DVRs, and also allows programming to be sent to a personal computer or portable media player.<sup>920</sup> The new Tivo Series 3 DVR, featuring high definition and CableCARD support, does not yet support the TivoToGo service while content protection issues are being worked out with CableLabs.<sup>921</sup> Slingbox<sup>922</sup> and Sony’s LocationFree<sup>923</sup> digitally encode a signal source, such as the video output of a set-top box, and stream the video over the home network or over the Internet to a personal computer or mobile device, allowing users to effectively take their multichannel

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<sup>913</sup> Craig Matsumoto, *Entropic, Verizon Serve Up MOCA*, LIGHT READING, Jan. 5, 2006, at [http://www.lightreading.com/document.asp?doc\\_id=86434](http://www.lightreading.com/document.asp?doc_id=86434) (visited Jan. 30, 2007).

<sup>914</sup> *AT&T Says 'Yes' to HomePNA, 'No' to MoCA*, THE ONLINE REPORTER, Sept. 2, 2006, at [http://www.onlinereporter.com/article.php?article\\_id=7568](http://www.onlinereporter.com/article.php?article_id=7568) (visited Jan. 30, 2007).

<sup>915</sup> Multimedia over Coax Alliance, at <http://mocalliance.org> (visited Jan. 30, 2007).

<sup>916</sup> Home Phoneline Networking Alliance, at <http://www.homepna.org> (visited Jan. 30, 2007).

<sup>917</sup> HomePlug Powerline Alliance, at <http://www.homeplug.org> (visited Jan. 30, 2007).

<sup>918</sup> Throughput is defined as the data-carrying capacity of a network, a result of the number of data bits transferred at one time and the rate at which they are transferred. The 802.11g standard estimates a maximum throughput of 54 million bits per second (“Mbps”), but real-world performance usually results in a maximum throughput of less than 24 Mbps shared among all devices on the network. An Ethernet home network usually has a reliable throughput of 100 Mbps for each device. A high definition video stream requires a constant 12-20 Mbps for reliable live playback.

<sup>919</sup> IEEE, *IEEE 802.11n Report*, at [http://grouper.ieee.org/groups/802/11/Reports/tgn\\_update.htm](http://grouper.ieee.org/groups/802/11/Reports/tgn_update.htm) (visited Jan. 30, 2007).

<sup>920</sup> TiVo Inc., *TiVo Desktop*, at <http://www.tivo.com/4.9.4.1.asp> (visited Jan. 30, 2007).

<sup>921</sup> TiVo Inc., *Buy TiVo*, at <http://www.tivo.com/2.0.3hdDvr.faq.asp#8> (visited Jan. 30, 2007).

<sup>922</sup> Swing Media, at <http://www.slingmedia.com/indexa.php> (visited Jan. 30, 2007).

<sup>923</sup> Sony, *Locationfree Living*, at <http://www.learningcenter.sony.us/assets/itpd/locationfreetv/index.html> (visited Jan. 30, 2007).

video service with them to wherever they can access the Internet. Microsoft's Windows Media Center can turn a user's personal computer into a home media server. A Media Center Extender (extender), such as the Microsoft Xbox 360,<sup>924</sup> can connect to the Media Center PC to stream multimedia files and display them on a TV elsewhere in the home. The extender can also connect through the PC to services like Movielink<sup>925</sup> to purchase and download video from the Internet. As home network-enabled devices such as these become more prevalent, some predict that future consumers may choose not to subscribe to a traditional multichannel video service and instead acquire video content from an Internet download service. Such content could be downloaded on a PC then streamed to another device, such as an extender, to display on a user's TV.

274. **WiMax and Municipal Wi-Fi.** Development of WiMAX continues in standards groups to create a last-mile solution for delivery of video, voice, and data.<sup>926</sup> The wireless technology, embodied in IEEE Standard 802.16, can be used to provide entire metropolitan areas with high-speed data access with speeds up to 75 Mbps and ranges up to 30 miles.<sup>927</sup> Mobile WiMAX, IEEE Standard 802.16, provides peak downstream data rates of up to 63 Mbps per sector and upstream data rates of up to 28 Mbps per sector in a 10 MHz channel.<sup>928</sup> Sprint Nextel announced that it would build a mobile WiMAX fourth-generation wireless network and plans to launch the service in trial markets by the end of 2007.<sup>929</sup> Additional efforts to create metropolitan wireless broadband access also are underway, including high-speed mesh networks, IEEE Standard 802.20, and municipal Wi-Fi.<sup>930</sup> Municipal wireless networks offering widespread coverage and high bandwidth could become an alternative video delivery platform. While WiMax continues in development, deployments of municipal Wi-Fi progressed and expanded during the last year. The opposition to municipal Wi-Fi noted in previous years has subsided and major

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<sup>924</sup> Microsoft Inc., *Media Center Extender*, <http://www.microsoft.com/windowsxp/mediacenter/extender/default.aspx> (visited Jan. 30, 2007).

<sup>925</sup> Movielink, at <http://www.movielink.com> (visited Jan. 30, 2007).

<sup>926</sup> World Interoperability for Microwave Access ("WiMAX") is based on the IEEE 802.16 standard and offers higher speeds and greater distances than IEEE 802.11 based Wi-Fi. WiMAX is being developed as a solution to providing Metropolitan Area Networks ("MANs"). See, e.g. Intel Corporation, *What is WiMAX*, at <http://www.intel.com/netcomms/technologies/wimax/index.htm> (visited Mar. 27, 2007), The IEEE 802.16 Working Group on Broadband Wireless Access Standards, at <http://www.ieee802.org/16/> (visited Mar. 27, 2007), WiMAX Forum, at <http://www.wimaxforum.org/home/> (visited Mar. 27, 2007).

<sup>927</sup> Intel Corporation, *Understanding Wi-Fi and WiMAX as Metro-Access Solutions 3*, at <http://www.intel.com/netcomms/technologies/wimax/304471.pdf> (visited Feb. 5, 2007).

<sup>928</sup> WiMAX Forum, *Mobile WiMAX – Part 1: A Technical Overview and Performance Evaluation 10*, Aug. 2006, at [http://www.wimaxforum.org/technology/downloads/Mobile\\_WiMAX\\_Part1\\_Overview\\_and\\_Performance.pdf](http://www.wimaxforum.org/technology/downloads/Mobile_WiMAX_Part1_Overview_and_Performance.pdf) (visited Feb. 5, 2007).

<sup>929</sup> Sprint Nextel, *Sprint Nextel Announces 4G Wireless Broadband Initiative with Intel, Motorola, and Samsung* (press release), Aug. 8, 2006.

<sup>930</sup> Wi-Fi is a brand coined by the Wi-Fi alliance to indicate compatibility with the IEEE 802.11 wireless local area network ("WLAN") specifications. IEEE 802.11 is specified to work in either 2.4 GHz or 5 GHz spectrum bands and at speeds of either up to 11 Mbps or up to 54 Mbps. IEEE 802.11 and the term Wi-Fi have become synonymous with wireless networking provided for computers, laptops, and numerous other devices. See Wi-Fi Alliance, at <http://wi-fi.org>; see also IEEE, *802.11*, at <http://www.ieee802.org/11/>.

content providers, LECs, and cable operators have begun taking advantage of the technology as a way to reach consumers.<sup>931</sup>

275. **Next Generation Network Architecture.** Cable's Next Generation Network Architecture ("NGNA") refers to the ongoing efforts by major MSOs to advance cable operators' transition to all-digital networks and provide an alternative software-based downloadable conditional access ("DCAS") system that supports the cable operators' existing security. The non-profit company Polycipher, backed by Comcast, Cox Communications, and Time Warner, intends to continue the work NGNA LLC had begun on development of this technology.<sup>932</sup> The NGNA architecture would unify cable's IP and MPEG video infrastructures in an effort to drive down equipment costs, reclaim valuable hybrid fiber coaxial ("HFC") spectrum, and enable high-value digital services. Fulfilling the NGNA vision requires a new class of digital IP-based cable edge devices that integrate the functionality of high-density edge QAM platforms, DOCSIS CMTS, and video processing.<sup>933</sup> The ultimate goal is for IP traffic (data, voice, and video) and MPEG traffic (broadcast and on-demand standard and high-definition video) to flow over a common Gigabit Ethernet backbone to the cable network edge. There, the NGNA edge platform would dynamically route services to the appropriate customer premise devices, whether an MPEG set-top box, IP set-top box, cable modem, or PacketCable E-MTA.<sup>934</sup>

276. Cable operators also see Switched Digital Video ("SDV") as a solution for major near-term capacity problems. However, they view it as only a first step in a long-term migration to a new NGNA architecture.<sup>935</sup> Rather than transmitting all available channels to viewers at once, SDV combines the bandwidth efficiencies of compressed digital content with switching technology to enable content to

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<sup>931</sup> See, e.g., deployments by Google in Mountain View, California; deployment by Time Warner in Cedarburg, Wisconsin; and plans by AT&T in Illinois. MuniWireless, *December 2006 Update of Wireless Cities and Counties*, at <http://www.muniwireless.com/reports/docs/Dec-29-2006summary.pdf> (visited Feb. 5, 2007).

<sup>932</sup> Jeff Baumgartner, *Polycipher Key to Cable's Downloadable Conditional Access Effort*, CED MAGAZINE, August 17, 2006. See additional discussion of DCAS and Polycipher in Cable and Navigation Devices in Section IV. A. *supra*.

<sup>933</sup> The NGNA architecture requires several broadly defined components. The high density edge quadrature amplitude modulator ("QAM") packages digital video into 6 MHz streams to be delivered to consumer set-top boxes. The cable modem termination service ("CMTS"), operating using the DOCSIS standard, provides a central "hub" for the cable modems on the operators network to communicate with. The video processing aspect of NGNA will enable MPEG video stream processing immediately before the QAM device, permitting the insertion of streams (to enable pay-per-view and video-on-demand) as well as more advanced graphics services such as gaming or commercial insertion. See PDS Consulting, *NGNA Project*, at <http://www.pdsconsulting.net/NGNAProject.pdf> (visited Mar. 27, 2007).

<sup>934</sup> *Next-Generation Network Architecture (NGNA)*, LIGHT READING'S CABLE DIGITAL NEWS, Oct. 30, 2006, at [http://www.lightreading.com/document.asp?doc\\_id=109381&site=cdn](http://www.lightreading.com/document.asp?doc_id=109381&site=cdn) (visited Jan. 29, 2006).

<sup>935</sup> *MSO's Fight IPTV with IPTV*, LIGHTREADING, Mar. 31, 2006, at [http://www.lightreading.com/document.asp?doc\\_id=91833](http://www.lightreading.com/document.asp?doc_id=91833) (visited Jan. 29, 2007).

be streamed to viewers only upon request.<sup>936</sup> The availability of open, IP-based architecture has catalyzed the development of reliable, cost-effective, and scalable solutions to this inefficiency.

277. **Digital Content Protection.** As high-value digital video content is being made available to consumers, the Motion Picture Association of America (“MPAA”) and other content creators are increasingly concerned about unauthorized copying and the use of such content. According to an MPAA study, the industry lost \$6.1 billion to piracy in 2005.<sup>937</sup> MPAA stresses the need to implement content protection measures such as digital rights management (“DRM”) in hardware, software, or both, to reduce these losses.<sup>938</sup> Several of the DRM measures widely used to protect video have recently been compromised. Advanced Access Content System (“AACSS”), the copy protection system used for HD-DVD and Blu-Ray Disc, was reportedly compromised in January 2007.<sup>939</sup> The DRM included in the new Microsoft Windows Vista operating system also has reportedly been attacked.<sup>940</sup> Despite these setbacks, content protection remains a part of digital video distribution systems, including digital cable-ready receivers.<sup>941</sup>

278. **DOCSIS 3.0.** CableLab’s Data Over Cable Service Interface Specification (“DOCSIS”) continues to be the dominant standard used to provide high-speed Internet service for cable operators. As the throughput available to operators increases, their ability to deliver additional and more complex services, including video over IP, increases.<sup>942</sup> On August 7, 2006, CableLabs announced the approval of the new DOCSIS 3.0 specifications that enable cable operators to offer significantly higher data rates to their broadband customers. DOCSIS 3.0 describes downstream data rates of 160 Mbps or higher and upstream data rates of 120 Mbps or higher,<sup>943</sup> thereby significantly increasing cable operators’ position relative to LEC competitors. DOCSIS 3.0 also incorporates support for the Internet Protocol version 6 (“IPv6”). IPv6 is the next generation of the Internet Protocol and greatly expands the number of Internet addresses that cable operators may use, allowing them to provide consumers with more IP-based services.<sup>944</sup> The new DOCSIS specification promises secure delivery of advanced interactive video that would otherwise require complex engineering in the networks and substantial upgrades to the plant. To

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<sup>936</sup> In a traditional cable plant, all video services are delivered to all subscribers at all times. Thus, even though at any given moment no customers are viewing a particular video stream, that stream still consumes bandwidth across the entire network.

<sup>937</sup> MPAA, *MPAA Releases Data From Piracy Study* (press release), May 3, 2006.

<sup>938</sup> MPAA, *Glickman Stresses Need For Content Protection in Digital Age* (press release), June 21, 2006.

<sup>939</sup> *AACS Confirms Hacks on High-Definition DVD Players*, EWEEK, Jan. 25, 2007 at <http://www.eweek.com/article/2/0,1895,2087631,00.asp> (visited Feb. 2, 2007).

<sup>940</sup> David Berlind, *Vista DRM: How Fools and Their Copy Protection Investments Are Always Separated*, ZDNET, Jan. 30, 2007, at <http://blogs.zdnet.com/Berlind/?p=321> (visited Feb. 2, 2007).

<sup>941</sup> Letter from Neal M. Goldberg, General Counsel, NCTA, to Marlene H. Dortch, Secretary, FCC, CS-Docket 97-80 (Dec. 11, 2006) at 7, Exhibit A.

<sup>942</sup> “Throughput” is the actual amount of useful and non-redundant information which is transmitted or processed. See Harry Newton, *NEWTON’S TELECOM DICTIONARY* (CMP Books, 17<sup>th</sup> ed., 2001), at 697.

<sup>943</sup> CableLabs, *CableLabs Issues DOCSIS 3.0 Specification Enabling 160 Mbps* (press release), Aug. 7, 2006.

<sup>944</sup> *Id.*

achieve these higher data rates, DOCSIS 3.0 specifies a methodology called “channel bonding”<sup>945</sup> in both the upstream and downstream directions. DOCSIS 3.0 has fully replaced the widely anticipated 2.0b specification, which was never formalized and was identified only as an interim solution. While DOCSIS 2.0b was designed to produce significant gains in downstream data rates, it only provided an upstream rate of up to 30Mbps and was deemed insufficient in today’s marketplace.<sup>946</sup>

279. The transition to DOCSIS 3.0 will take place in two phases. Cable Modem Termination System (“CMTS”) equipment in the network must be replaced before the service can be offered. Later, partly by a process of natural replacement over time, the cable modems and set-top boxes in consumers’ homes also will change to DOCSIS 3.0-compatible equipment, often residential gateways supporting triple-play services.<sup>947</sup> Many major cable modem vendors, including BigBand Networks, Arris, and Cisco, participated in a week-long interoperability test in July of 2006, and all companies’ downstream channel bonding products were able to interoperate with each other with data successfully being transferred over the bonded channels.<sup>948</sup> In addition, developers successfully performed limited IPv6 testing.<sup>949</sup> The first volume shipments of DOCSIS 3.0-compliant network equipment are expected to occur in 2007. Speculation is that the penetration of DOCSIS 3.0 will reach nearly 60 percent for in-use CMTS by 2011. Penetration will be slower for the larger installed base of customer premise equipment, predicted to reach just under 40 percent in 2011.<sup>950</sup>

280. **PacketCable.** CableLabs’ PacketCable project continued standards development and certifications for delivering advanced IP services over broadband cable networks in 2006. While cable operators are deploying PacketCable 1.0 and 1.5 architecture for VoIP services within their cable networks, PacketCable 2.0 promises even greater flexibility and new services. PacketCable 2.0 is an application-agnostic architecture based on a common network core of standard protocols to register clients and establish sessions for voice, video, and text. PacketCable has the potential to allow the rapid introduction of new services, such as the integration of the cable network with wireless networks and cross platform feature integration (e.g., set-top box applications that integrate with the voice service for

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<sup>945</sup> Channel bonding is a load-sharing technique for combining multiple DOCSIS channels. DOCSIS 3.0 defines channel bonding for both the upstream and downstream directions. Downstream channel bonding is possible for a minimum of four channels, approximately 38Mbps each, for a total of about 152 Mbps shared throughput. Upstream channel bonding is possible for a minimum of four channels, 10 to 30 Mbps each, for a total of 40 to 120 Mbps of shared throughput. Motorola, *White Paper: Scaling Bandwidth Through Channel Bonding*, May 1, 2005, at [http://broadband.motorola.com/ips/pdf/Scaling\\_Bandwidth.pdf](http://broadband.motorola.com/ips/pdf/Scaling_Bandwidth.pdf).

<sup>946</sup> Jeff Baumgartner, *Channel Bonding DOCSIS 2.0b*, COMMUNICATIONS TECHNOLOGY, June 1, 2006.

<sup>947</sup> ABIResearch, *DOCSIS 3.0 Penetration to Reach 60% by 2011* (press release), Aug. 23, 2006.

<sup>948</sup> Bonding DOCSIS channels is a process by which separate channels of data are coordinated to work together and provide data to a single point faster than any single channel would be capable of. CableLabs, *CableLabs Issues DOCSIS 3.0 Specifications Enabling 160 Mbps*, SPECS NEWS & TECHNOLOGY FROM CABLELABS, Vol. 18, No. 3, July 2006.

<sup>949</sup> CableLabs, *CableLabs Issues DOCSIS 3.0 Specifications Enabling 160 Mbps* (press release), Aug. 7, 2006).

<sup>950</sup> *Id.*

features including caller ID display on the TV and the ability to forward incoming calls to voicemail or other telephone numbers).<sup>951</sup>

281. The Third Generation Partnership (“3GPP”) IP Multimedia Subsystem (“IMS”)<sup>952</sup> is the underlying technical foundation for PacketCable 2.0. IMS has become the Session Initiation Protocol (“SIP”) service delivery method for many wireless, DSL, and cable service providers. Even though IMS does not meet all of cable’s needs, it accelerates the development and availability of products without reinventing the SIP service platform.<sup>953</sup> New CableLabs specifications define in detail the communication interface requirements necessary for equipment manufacturers to develop interoperable products.<sup>954</sup> Using widely accepted standards based protocols, cable operators expect to see a migration of business and residential services onto the new IMS based PacketCable architecture.<sup>955</sup>

## V. FOREIGN MARKETS

282. 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 and the relative efficiency of market structures and regulations within the United States.<sup>956</sup> In last year’s report, we reviewed several countries’ experiences with IPTV over DSL.<sup>957</sup> This year, we focus on developments in digital tiers and a la carte services abroad.

283. MVPDs in many foreign markets offer programming on an a la carte basis or in mixed bundles, themed tiers, and subscriber-selected tiers. In Hong Kong, subscribers to PCCW’s NETVIGATOR broadband service receive PCCW’s IPTV service, “now TV,” as a free additional service. The basic free package of 21 channels includes traffic, weather, local news, and the Hong Kong Disneyland channel. Customers also can subscribe to more programming on additional charge-per-channel basis.<sup>958</sup> Subscribers may opt to pay for these additional channels on a per channel basis for a month, six months, or a year at a time. Main categories of premium channels include movies, music,

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<sup>951</sup> Kevin Johns, Eric Rosenfeld, *PacketCable 2.0- Design Goals, Strategic Drivers and Architecture*, CED WEB EXTRA, Dec. 1, 2006, at <http://www.cedmagazine.com/article/CA6398269.html> (visited Jan. 30, 2006).

<sup>952</sup> Third Generation Partnership, at <http://www.3gpp.org> (visited Feb. 5, 2007).

<sup>953</sup> Kevin Johns, Eric Rosenfeld, *PacketCable 2.0- Design Goals, Strategic Drivers and Architecture*, CED WEB EXTRA, Dec. 1, 2006, at <http://www.cedmagazine.com/article/CA6398269.html> (visited Jan. 30, 2006).

<sup>954</sup> CableLabs, *CableLabs Issues Specifications for Advanced IP Services Platform* (press release), Apr. 6, 2006.

<sup>955</sup> Jonathan Rosenberg, *Migrating to IMS and PacketCable 2.0*, NCTA-The National Show 2006, April 9-11, 2006, at [http://www.cisco.com/application/pdf/en/us/guest/netso/ns633/c664/cdccont\\_0900aecd80458e2a.pdf](http://www.cisco.com/application/pdf/en/us/guest/netso/ns633/c664/cdccont_0900aecd80458e2a.pdf) (visited Jan. 30, 2006).

<sup>956</sup> *Notice*, 21 FCC Rcd at 12261 ¶ 90.

<sup>957</sup> *See 2005 Report*, 21 FCC Rcd at 2609-13 ¶¶ 236-242.

<sup>958</sup> PCCW Interim Report 2006, at [http://www.pccw.com/NASApp/cs/BlobServer/20060928\\_interim\\_eng.pdf?blobtable=FinancialUpload&blobclo=urlfile&blobkey=id&blobwhere=1159123225195&blobhead=application/octet-stream&wtsection=investors](http://www.pccw.com/NASApp/cs/BlobServer/20060928_interim_eng.pdf?blobtable=FinancialUpload&blobclo=urlfile&blobkey=id&blobwhere=1159123225195&blobhead=application/octet-stream&wtsection=investors). Initially, now TV only operated 23 channels, most of which were in English. At present, NOW TV offers 21 free channels and 109 pay channels, including 15 audio channels, and the total number of channels has exceeded 140. *See also* <http://www.now-tv.com/eng/> (visited May 9, 2007).

news, sports, and children's programming. For a one-year commitment, HBO costs U.S. \$5.12, CNN International costs U.S. \$1.53, and ESPN STAR Sports Cricket Live costs U.S. \$21.52. According to the annual reports issued by PCCW, by the end of June 2006, the number of installed now TV services reached 608,000, of which 73 percent were subscribing to pay channels. By the end of August 2006, the number of installed services had reached 654,000.<sup>959</sup> We note that according to media reports, revenue per subscriber increased 8.5 percent, from U.S. \$13.44 to U.S. \$14.59.<sup>960</sup> PCCW hopes to raise revenue by providing customers with a small number of free channels and offering discounts to subscribers who buy packages of channels on an a la carte basis.<sup>961</sup> In spite of slow revenue growth, by offering customers freedom of choice, PCCW has proved to be an innovator in the IPTV marketplace.<sup>962</sup>

284. In 2005, there were 9.1 million subscription TV subscribers in Canada. Of these, 6.6 million were cable subscribers, and 2.5 million were DTH subscribers.<sup>963</sup> The top four operators – Rogers, Shaw, Cogeco, and Videotron – provide service to 72 percent of Canadian homes served by cable.<sup>964</sup> Videotron offers a la carte packages, providing consumers with 40 basic channels and allowing consumers a choice of 20 or 30 additional channels plus movies from over 100 channels.<sup>965</sup> Similarly, Rogers Communications, Canada's largest cable operator, provides a la carte offerings, but the company first requires customers to subscribe to a monthly basic package (approximately U.S. \$20.00) and lease a digital set-top box for U.S. \$7.60. Customers can then purchase channels a la carte starting at U.S. \$2.11 per month.<sup>966</sup>

285. In India, as of January 1, 2007, consumers in Mumbai, Delhi and Kolkata have a la carte choices with the implementation of the government-mandated Conditional Access System ("CAS"). The city of Chennai has been under CAS since 2003. CAS is a mode of transmitting encrypted cable channels. Consumers need to buy a set-top box to receive and decrypt the signal. Without a set-top box, a cable customer can only receive 30 basic channels for a subscription fee of Rs. 77 (US\$1.88) a month, a price fixed by the Telecom Regulatory Authority of India (TRAI). Broadcast-to-air channels also can be

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<sup>959</sup> *Id.* See PCCW Interim Report 2006. See also Matt Stump, *High Interest, Little Payoff in Hong Kong*, MULTICHANNEL NEWS, May 1, 2006. ("This [a la carte] proved to be a major selling point against the traditional cable-TV proposition of basic and premium-tiered packages.")

<sup>960</sup> *Id.*

<sup>961</sup> *Id.*

<sup>962</sup> See Mary Lennighan, *All Eyes on Asian IPTV Rollouts*, TOTAL TELECOM, Mar. 31, 2006 ("To successfully launch IPTV services, the lesson we learned is content . . . The company needs to differentiate itself from the cable operators."). In addition, PCCW produces its own business news channel, employing 100 people. Craig Stephen, *Asian Operators Caution on IPTV Expectations*, TOTAL TELECOM, May 19, 2006. In response to NOW TV's growth, Hong Kong's market leader, i-Cable, has recently adopted an alternative pricing model for its subscribers. i-Cable allows subscribers to choose and pay for their own channels.

<sup>963</sup> See CRTC, at <http://www.crtc.gc.ca> (visited Mar. 14, 2007).

<sup>964</sup> *Id.*

<sup>965</sup> See Videotron, at <http://www.videotron.com/services/en/television/illico-a-la-carte.jsp> (visited May 9, 2007) ("A la Carte 30" is currently priced at U.S. \$30.00).

<sup>966</sup> See Rogers Communications, at <http://www.rogers.com>. See also Viacom Reply at 11.

viewed without a set-top box. With a set-top box, consumers can subscribe to “premium” channels.<sup>967</sup> Those subscribing to premium channels pay Rs. 5 (US\$0.12) per channel – also set by TRAI – in addition to the basic subscription fee. There are nearly 30 premium channels available, including National Geographic Channel, Disney Channel, Animal Planet, Discovery Channel, Cartoon Network, CNN, and HBO. The set-top boxes are available at prices fixed by TRAI. The first option is to rent the set-top box for Rs. 30 (US\$0.73) per month plus a refundable deposit of Rs. 999 (US\$24.43). The second alternative is to rent the set-top box for Rs. 45 (US\$1.10) and a refundable deposit of Rs. 250 (US\$6.12) per box where Rs. 3 (US\$0.07) per month of use of the box is deducted.<sup>968</sup> Besides the a la carte offerings, consumers also may subscribe to bundles of channels distributed by a broadcaster and/or cable operator. However, the prices of those packages are subject to TRAI approval.<sup>969</sup> In non-CAS areas, prices are frozen at December 2003 levels plus a 7 percent increase.<sup>970</sup>

286. MVPDs in Europe provide perhaps the most interesting a la carte offerings. Among European Union member states, the United Kingdom (“UK”) has one of the most competitive pay-TV markets. British communications law requires digital cable and satellite TV services to offer a low-cost service that approximates the analog over-the-air service currently available to 99.4 percent of the population.<sup>971</sup> The UK does not have any specific rules that mandate the provision of a la carte pricing on pay TV.

287. In launching BT Vision, its new pay-TV service in December 2006, British Telecom (“BT”) is pioneering a technology that may dramatically affect the pay-TV marketplace, both for viewers and advertisers. BT is positioning the service as a supplement to Freeview, the UK's free-to-air digital terrestrial television (“DTT”) platform, rather than as a standalone pay-TV service.<sup>972</sup> BT's TV service has no mandatory subscription fee; rather, users may opt to pay a one time equipment, installation, and connection fee and then select content on a pay-as-you-go basis.<sup>973</sup> Specifically, BT Vision requires an installation fee of £60 (approximately U.S. \$120.00) and connection fee of £30 (approximately U.S. \$60.00). It provides a la carte offerings such as films from £1.99 (approximately U.S. \$4.00); music

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<sup>967</sup> In India, the term “premium channels” refers to networks typically included on the expanded basic tier in the United States.

<sup>968</sup> Shuchi Bansal, *CAS vs DTH: Which is Better?*, REDIFF INDIA ABROAD, Dec. 29, 2006, <http://www.rediff.com/money/2006/dec/29cas1.htm>. See also Telecom Regulatory Authority of India, *Details of Maximum Retail Prices of the Pay Channels Declared by the Broadcasters for CAS Notified Areas in Terms of Clause 7 (ii) of the Telecom Regulatory Authority of India's Tariff Order dated 31.08.2006*, Apr. 30, 2007.

<sup>969</sup> Rahul Kumar, *Indian News: Nimbus Communications Ltd Vs TRAI*, ASIA PULSE PTE LTD, May 1, 2007.

<sup>970</sup> E-mail from Rajendra Singh, former Principal Secretary, Telecom Regulatory Authority of India, May 9, 2007.

<sup>971</sup> United Kingdom Communications Act 2003, Elizabeth II; Chapter 21, (Part 3, Chapter 6, Section 361).

<sup>972</sup> The system allows access to about 40 television channels which are already available via Freeview using a tuner in the set-top box.

<sup>973</sup> See BT Vision, at <http://www.btvision.bt.com/btvision>. Ken Wieland, *What Role for IPTV?*, TELECOMMUNICATIONS INTERNATIONAL, Sept. 1, 2006 (“[BT Vision] will give customers the option of pay-per-view and other interactive services, but they won't have to buy into a package of channels first...there is a large number of UK subscribers who are ‘subscription averse’ to monthly packages but who still want broader TV choice and would pay for occasional video-on-demand and interactive services.”).

videos from 29p (approximately U.S. \$0.58); television shows from 79p (approximately U.S. \$1.58); and children's programming starting at 49p (approximately U.S. \$.98). The company also offers subscription packs on a month by month basis with no long-term tie-in. Thus, it appears that BT Vision is providing an a la carte system where consumers may select any programming services they want and do not have to first subscribe to a monthly basic tier package.

288. BT Vision will compete with Sky TV, owned by BSkyB, which is currently the UK's top MVPD, with more than 8 million subscribers.<sup>974</sup> Sky TV offers both free-to-air and subscription services. Without a subscription, 160 channels are available. For additional fees, subscribers may choose from a menu of themed packages, each called a "mix." There are six mixes and two premium mixes, one for sports and one for movies. The tiers that are offered include: a variety mix with dramas, old classics and top comedy; a knowledge mix of documentaries and educational programs; a music mix with pop, dance, and classical; and a kids mix with educational programs including a parental control feature.<sup>975</sup>

289. Viacom cites two examples, Canada and Hong Kong, of how digital tiers and a la carte services are not economically viable and do not provide consumers with significant benefits. For example, Viacom claims that in Hong Kong, a la carte service is offered as a "loss leader" by the incumbent telephone company.<sup>976</sup> We note, though, that PCCW's revenues from its TV and Content segment rose more than 70 percent in 2006 and subscribership to its a la carte service increased by more than 38 percent.<sup>977</sup> In addition, Rogers Communications' Cable and Internet segment reported year-end 2006 operating profits of CA\$833 million as compared with 2005 operating profits of CA\$723 million for the same segment, an increase of 15.2 percent.<sup>978</sup>

## VI. ADMINISTRATIVE MATTERS

290. This *2006 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).

291. It is ORDERED that the Office of Legislative Affairs shall send copies of the *2006 Report* to the appropriate committees and subcommittees of the United States House of Representatives and the United States Senate.

292. It is FURTHER ORDERED that the proceeding in MB Docket No. 06-189 IS TERMINATED.

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<sup>974</sup> See BSkyB Ltd., *Results for Six months Ended December 31, 2006, BSkyB Announces Record Sales and 20% Increase in Interim Dividend; On Track for our Targets* (press release), Jan. 31, 2007.

<sup>975</sup> *Id.*

<sup>976</sup> See Viacom Reply 11-13.

<sup>977</sup> PCCW Annual Report 2006, at 4 and 103 (noting that revenues from PCCW's TV and Content Segment totaled HK\$739 million in 2006, as opposed to HK\$431 million in 2005, and noting that the number of subscribers to PCCW's NOW TV service rose from 549,000 on December 31, 2005 to 758,000 on December 31, 2006).

<sup>978</sup> Rogers Communications Inc., *Management's Discussion and Analysis of Financial Condition and Results of Operations: Summarized Cable and Telecom Financial Results*, 2006 Annual Report, at 36.

293. *Accessible Formats.* To request materials in accessible formations 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 (“TAC”)  
American Cable Association (“ACA”)  
Anne Arundel County and Montgomery County, Maryland (“Maryland Counties”)  
Association of Public Television Station (“APTS”)  
AT&T Inc. (“AT&T”)  
BellSouth Corporation and BellSouth Entertainment, LLC (“BellSouth”)  
Black Television News Network (“BTN”)  
Broadband Service Providers Association, Champion Broadband, Everest Connections, Hiawatha  
Broadband, Knology, PrairieWave Communications, RCN, Sigecom, SureWest Communications,  
and WOW! Internet, Cable & Phone (“BSPA”)  
Burnsville/Eagan Telecommunications Commission (“Burnsville”)  
Center for Creative Voices in Media (“CCVM”)  
Central St. Croix Valley Joint Cable Communications Commission (“St. Croix”)  
Champaign-Urbana (Illinois) Cable Television and Telecommunications Commission  
 (“Champaign-Urbana”)  
City of Champaign, Illinois (“Champaign”)  
City of Fort Worth, Texas (“Fort Worth”)  
City of Green Spring, Kentucky (“Green Spring”)  
City of Jenkins, Kentucky (“Jenkins”)  
City of Minneapolis, Minnesota (“Minnesota”)  
City of Naperville, Illinois (“Naperville”)  
City of New York (“NYC”)  
City of Wheaton, Illinois (“Wheaton”)  
Clarity Media Systems, LLC (“Clarity”)  
Coalition for Retransmission Consent Reform (“CRCR”)  
Comcast Corporation (“Comcast”)  
Community Broadcasters Association (“CBA”)  
Community Programming Board of Forest Park, Greenhills, and Springfield Township, Ohio  
 (“Forest Park”)  
Consumer Electronics Association (“CEA”)  
DIRECTV, Inc. (“DIRECTV”)  
EchoStar Satellite L.L.C. (“EchoStar”)  
Elk Grove Village, Illinois (“Elk Grove”)  
Evanston, Illinois (“Evanston”)  
Fiber-to-the-Home Council (“FTTH Council”)  
Greater Metro Telecommunications Consortium and the Rainier Communications Commission  
 (“GMTC/RCC”)  
Hispanic Information and Telecommunications Network (“HITN”)  
Hoffman Estates, Illinois (“Hoffman Estates”)  
Bill Hotchkiss, General Manager, Huxley Communications (“Hotchkiss”)  
Lake Minnetonka Communications Commission (“Lake Minnetonka”)  
League of Minnesota Cities and the Minnesota Association of Community Telecommunications  
 Administrators (“Minnesota Cities”)

Mt. Hood Cable Regulatory Commission (“Mt. Hood”)  
National Association of Broadcasters (“NAB”)  
National Association of Telecommunications Officers and Advisors, the National League of Cities, the  
National Association of Counties, and the U.S. Conference of Mayors (“NATOA”)  
National Cable & Telecommunications Association (“NCTA”)  
National Telecommunications Cooperative Association (“NTCA”)  
Northbrook, Illinois (“Northbrook”)  
Northern Dakota County Cable Communications Commission (“NDC4”)  
Northern Suburban Communications Commission (“NSCC”)  
Panasonic Corporation of North America (“Panasonic”)  
PVT NetWorks Inc. (“PVT”)  
Queen Anne’s County, Maryland (“Queen Anne’s”)  
Sacramento Metropolitan Cable Television Commission (“SMCTC”)  
State of Hawaii (“Hawaii”)  
SureWest Communications (“SureWest”)  
United States Telecom Association (“USTelecom”)  
Verizon Communications Inc. (“Verizon”)  
Village of Skokie, Illinois (“Skokie”)  
West Central Cable Agency, Cook County, Illinois (“West Central”)

### **Reply Comments**

American Public Power Association (“APPA”)  
Anne Arundel County and Montgomery County, Maryland (“Maryland Counties”)  
AT&T Inc. (“AT&T”)  
Bend Cable Communications, LLC (“BendBroadband”)  
Burnsville/Eagen Telecommunications Commission, the North Metro Telecommunications Commission,  
the North Suburban Communications Commission, the City of Oklahoma City, Oklahoma, the  
City of Renton, Washington, and the South Washington County Telecommunications  
Commission (“Burnsville”)  
CBS Corporation, Fox Entertainment Group, Inc. and Fox Television Stations, Inc., NBC-Universal, Inc  
and NBC Telemundo License Co., and The Walt Disney Company (“Joint Broadcasters”)  
City of Milwaukee (“Milwaukee”)  
City of Sycamore in Louisville, Kentucky (“Sycamore”)  
Comcast Corporation (“Comcast”)  
Consumers Union, Free Press and Consumer Federation of America (“Consumers Union”)  
Cox Communications, Inc. (“Cox”)  
EchoStar Satellite L.L.C. (“EchoStar”)  
Fairfax County, Virginia (“Fairfax”)  
Fiber-to-the-Home Council (“FTTH Council”)  
Independent Multi-Family Communications Council (“IMCC”)  
Island Television Network, LLC (“Island TV”)  
National Association of Broadcasters (“NAB”)  
National Association of Telecommunications Officers and Advisors, the National League of Cities, the  
National Association of Counties, and the U.S. Conference of Mayors (“NATOA”)  
National Cable & Telecommunications Association (“NCTA”)  
Organization for the Promotion and Advancement of Small Telecommunications Companies  
 (“OPATSCO”)  
People of the State of California and California Public Utilities Commission of the State of California

(“California”)  
Sinclair Broadcast Group, Inc. (“Sinclair”)  
Society of Broadcast Engineers, Inc. (“SBE”)  
TDS Telecommunications Corp. (“TDS”)  
United States Telecom Association (“USTelecom”)  
Verizon Communications Inc. (“Verizon”)  
Viacom Inc, MTV Networks, and Black Entertainment Television, LLC (“Viacom”)  
Viodi, LLC (“Viodi”)

## APPENDIX B

**TABLE B-1**  
**Assessment of Competing Technologies**

Technology Used	June 02	June 03	June 04	June 05	June 06
(1) TV Households <sup>(i)</sup>	105,444,330	106,641,910	108,410,160	109,590,170	110,213,910
Percent Change	3.19%	1.14%	1.66%	1.09%	0.57%
(2) MVPD Households <sup>(ii)</sup>	87,562,641	88,312,191	92,295,766	94,226,357	95,784,478
Percent Change	1.74%	0.86%	4.51%	2.09%	1.65%
Percent of TV Households	83.04%	84.18%	85.14%	85.98%	86.91%
(3) Cable Subscribers	66,472,000	66,050,000	66,100,000	65,400,000	65,300,000
Percent Change	-0.39%	-0.63%	0.08%	-1.06%	-0.15%
Percent of MVPD Total	75.91%	73.58%	71.62%	69.41%	68.17%
(4) Wireless Cable Subscribers	490,000	200,000	200,000	100,000	100,000
Percent Change	-30.00%	-59.18%	0.00%	-50.00%	0.00%
Percent of MVPD Total	0.56%	0.22%	0.22%	0.11%	0.10%
(5) PCO Subscribers	1,600,000	1,200,000	1,100,000	1,000,000	900,000
Percent Change	6.67%	-25.00%	-8.33%	-9.09%	-10.00%
Percent of MVPD Total	1.83%	1.34%	1.19%	1.06%	0.94%
(6) HSD Subscribers	700,641	502,191	335,766	206,358	111,478
Percent Change	-29.94%	-28.32%	-33.14%	-38.54%	-45.98%
Percent of MVPD Total	0.80%	0.56%	0.36%	0.22%	0.12%
(7) DBS Subscribers	18,240,000	20,360,000	23,160,000	26,120,000	27,973,000
Percent Change	13.50%	11.62%	13.75%	12.78%	7.09%
Percent of MVPD Total	20.83%	22.68%	25.09%	27.72%	29.20%
(8) OVS Subscribers <sup>(iii)</sup>	60,000				
Percent Change	0.00%				
Percent of MVPD Total	0.07%				
(9) BSP Subscribers <sup>(iv)</sup>		1,460,000	1,400,000	1,400,000	1,400,000
Percent Change		N/A	-4.11%	0.00%	0.00%
Percent of MVPD Total		1.63%	1.52%	1.49%	1.46%

**Notes:**

- (i) Figures are estimates for January.
- (ii) The total number of MVPD households given on this table is the sum of the subscribers to each of the MVPD services listed. The actual 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 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 in 2003, and thus we do not have

subscribers for 2002.

**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: Data for 2003 through 2005 were taken from *Reports, 2003-2005*; 2006 from Kagan Research, LLC, *Kagan's 10-Year Cable TV Industry Projections*, Broadband Cable Financial Databook 2006 at 11.
- (4) BRS subscribers: 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, n.12; 2005 from NCTA, *Analysis of MVPDs: March 2005*, Cable Developments 2005 at 15; 2006 from NCTA Comments for the *2006 Report* at 9.
- (5) PCO (SMATV) subscribers: 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, n.12; 2005 from Kagan Media Research, *Media Trends 2005*, at 69; 2006 from Kagan Media Research, *Media Trends 2006*, at 64.
- (6) HSD subscribers: 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 *2004 Report*, 20 FCC Rcd at 2798 ¶ 64; 2005 from *2005 Report*, 21 FCC Rcd at 2617; 2006 from *C-Band Numbers Keep Dwindling*, Satellite Business News FAXUpdate, July 7, 2005.
- (7) DBS subscribers: 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 *2004 Report*, 20 FCC Rcd at 2792 ¶ 54; 2005 from *2005 Report*, 21 FCC Rcd at 2617; 2006 from The DIRECTV Group, Inc., *SEC Quarterly Report Form 10-Q Pursuant to Section 13 or 15(d) of the Securities Act of 1934 for the Quarterly Period Ended June 30, 2006*, at 19, and EchoStar Communications Corp., *SEC Quarterly Report Form 10-Q Pursuant to Section 13 or 15(d) of the Securities Act of 1934 for the Quarterly Period Ended June 30, 2006*, at 28.
- (8) OVS: Beginning in 2003, we combined OVS subscribers with BSP subscribers. We are no longer, therefore, reporting a separate number for OVS subscribers. See note (iii) above.
- (9) BSP subscribers: 2003 subscribers from NCTA Comments for the *2003 Report* at 8; 2004 subscribers from BSPA Comments at 6 for the *2004 Report* and Commission estimates; 2005 from *2005 Report*, 21 FCC Rcd at 2617; 2006 subscribers from BSPA Comments at 6 and Commission estimates.

TABLE B-2

**Number and Subscriber Size of Major Cable System Clusters  
(Cumulative Figures)**

Range of Clustered Subscribers (thousands)	2002		2003		2004		2005	
	Clusters	Subscribers (millions)						
100-199	31	4.5	34	4.9	46	5.4	34	4.4
200-299	18	4.4	18	4.4	18	6.3	22	5.5
300-399	21	7.1	17	5.7	17	6.6	20	7.0
400-499	10	4.4	10	4.4	8	3.5	8	3.5
>500	29	31.0	29	34.3	29	29.7	29	29.8
<b>Total</b>	109	51.3	108	53.6	118	51.5	113	50.8

**Sources:**

2002 from Kagan World Media, *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2003, at 39; 2003 from Kagan Research, LLC, *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2004, at 39-40; 2004 from Kagan Research, LLC, *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2005, at 39-40; and 2005 from Kagan Research, LLC, *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2006, at 37-38. Figures for 2005 include the system swaps and additions due to the Comcast and Time Warner acquisition of Adelphia which was announced in 2005 and finalized in 2006. Since 2004, Kagan World Media's methodology for counting clusters has changed, leading to difficulties in directly comparing years before and after 2004, which causes year-to-year comparisons to be uninformative. Prior to 2004, all of Comcast's subscribers in the Northeast and Mid-Atlantic were counted as part of one "supercluster." Beginning in 2004, those subscribers were broken out into separate clusters. This is probably a more accurate approach, but causes direct year-to-year comparisons to be uninformative.

TABLE B-3

2006 Concentration in the National Market for Purchase of Video Programming<sup>(1)</sup>

Rank	Company	Percent of Subscribers <sup>(2)</sup>
1	Comcast	22.44%
2	DIRECTV	16.20%
3	EchoStar	13.01%
4	Time Warner	11.52%
<b>Top 4</b>		63.17%
5	Charter	6.17%
6	Cox	5.64%
7	Adelphia <sup>(3)</sup>	5.09%
8	Cablevision	3.20%
<b>Top 8</b>		83.27%
9	Bright House	2.38%
10	Mediacom	1.48%
<b>Top 10</b>		87.13%
<b>Top 25</b>		93.46%
<b>Top 50</b>		95.05%
	<b>HHI</b>	1187 <sup>(4)</sup>

**Notes:**

- (1) MSO subscriber totals as reported in Top Cable System Operators as of June 2006, Kagan World Media, *Cable TV Investor: Deals & Finance*, June 30, 2006, at 10-11. 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 MSO with the largest ownership stake. Subscribers for DIRECTV and EchoStar are based on the company's SEC 10-Q filings. These rankings pre-date the acquisition of Adelphia's cable systems by Comcast and Time Warner in July 2006. Data for year-end 2006 show that Comcast remains the largest MVPD with 24.16 million subscribers; DIRECTV is ranked second with 15.95 million subscribers; Time Warner is ranked third with 13.40 million subscribers; and EchoStar is ranked fourth with 13.10 million subscribers. Comcast Corp., *Comcast Reports 2006 Results and Outlook for 2007* (press release), Feb. 1, 2007; The DirecTV Group, Inc., *The DirecTV Group Announces Fourth Quarter and Full Year 2006 Results* (press release), Feb. 7, 2007; Time Warner Inc., *Time Warner Inc. Reports Results for 2006 Full Year and Fourth Quarter* (press release), Jan. 31, 2007; EchoStar Communications Corp., *EchoStar Reports Fourth Quarter 2006 Financial Results* (press release), Mar. 1, 2007. These rankings do not take account of Time Warner's

attributable interest in Bright House Networks. When this attributable interest is factored in, Time Warner is the second largest MVPD.

- (2) The total number of MVPD subscribers used to calculate the HHI is 95,784,478 from Table B-1.
- (3) Adelphia is listed because these data are from June 2006, prior to Comcast's and Time Warner's acquisition of its systems. *See* note 1, *supra*.
- (4) The HHI is calculated on the basis of market shares for the top 73 companies. Because all of the remaining MVPDs have very small shares of the market, an HHI calculation that included all MVPDs would only be slightly higher (no more than 2-3 points) than the reported HHI.

TABLE B-4

**Concentration in the National Market for the Purchase of Video Programming  
2003-2006**

Market Share	Percent of MVPD Subscribers			
	2003	2004	2005	2006
Top Share	22.69	23.37	22.99	22.44%
Top 2	35.01	35.47	38.71	38.64%
Top 3	46.63	47.34	50.99	51.65%
Top 4	55.98	57.97	62.67	63.17%
Top 10	81.95	84.72	88.39	87.13%
Top 25	87.45	90.41	94.00	93.46%
Top 50	89.29	92.32	95.73	95.05%
HHI	1134	1097	1201	1187

**Sources:**

Data for 2003 through 2005 were taken from *Reports, 2004-2005*. Data for 2006 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 (%)	Ownership by Other Media Entity
<b>Rainbow Media</b>			
American Movie Classics (AMC)	Oct. 84	Cablevision (100)	
Fuse	Jul. 94	Cablevision (100)	
Independent Film Channel	Sep. 94	Cablevision (100)	
WE: Women's Entertainment	Jan. 97	Cablevision (100)	
<b>Voom HD Networks</b>			
Animania HD	2005	Cablevision (80)	EchoStar
Equator HD	2005	Cablevision (80)	EchoStar
Family Room HD	2005	Cablevision (80)	EchoStar
Film Fest HD	2005	Cablevision (80)	EchoStar
Gallery HD	2005	Cablevision (80)	EchoStar
Gameplay HD	2005	Cablevision (80)	EchoStar
HD News	2005	Cablevision (80)	EchoStar
Kung Fu HD	2005	Cablevision (80)	EchoStar
Monsters HD	2005	Cablevision (80)	EchoStar
Rave HD	2005	Cablevision (80)	EchoStar
Rush HD	2005	Cablevision (80)	EchoStar
Treasure HD	2005	Cablevision (80)	EchoStar
Ultra HD	2005	Cablevision (80)	EchoStar
World Cinema HD	2005	Cablevision (80)	EchoStar
World Sport HD	2005	Cablevision (80)	EchoStar
<b>Turner Broadcasting System</b>			
Boomerang	Apr. 00	Time Warner (100)	
Cartoon Network/Adult Swim	Oct. 92	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)	
TBS (Turner Broadcasting System)	Dec. 76	Time Warner (100)	
Turner Classic Movies (TCM)	Apr. 94	Time Warner (100)	
Turner Network Television (TNT)	Oct. 88	Time Warner (100)	
TNT HD	May 04	Time Warner (100)	
Court TV	Jul. 91	Time Warner (100)	
Hispanic Television (HTV) <sup>(2)</sup>	Aug. 95	Time Warner (100)	
Infinito (Spanish-language) <sup>(2)</sup>		Time Warner (100)	
<b>HBO Group</b>			
Home Box Office (HBO)	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)	
HBO HD	Mar. 99	Time Warner (100)	
Cinemax	Jun. 98	Time Warner (100)	
Cinemax HD	Nov. 03	Time Warner (100)	
Action Max (Cinemax multiplex)	Aug. 80	Time Warner (100)	
@Max (Cinemax multiplex)	May 01	Time Warner (100)	
5StarMax (Cinemax multiplex)	May 02	Time Warner (100)	
MoreMAX (Cinemax multiplex)	Jun. 98	Time Warner (100)	
OuterMax (Cinemax multiplex)	May 01	Time Warner (100)	
Thriller Max (Cinemax multiplex)	Jun. 98	Time Warner (100)	
WMAX (Cinemax multiplex)	May 01	Time Warner (100)	

<b>Comcast Corp. Networks</b>			
AZN Television	Jul. 90	Comcast (100)	
E! Entertainment	Jun. 90	Comcast (100)	
G4 (formerly G4 VideogameTV)	Jun. 02	Comcast (84.8)	EchoStar
Golf Channel	Jan. 95	Comcast (99.9)	
MountainWest SportsNet -The Mtn	2006	Comcast (50)	CBS Corporation
PBS Kids Sprout	Oct. 05	Comcast (40)	PBS
Style	Oct. 98	Comcast (100)	
TV One	Jan. 04	Comcast (33.2)	News Corporation
VERSUS (formerly Outdoor Life Network)	Sep. 06	Comcast (100)	
<b>Discovery Communications, Inc.</b>			
Discovery Channel	Jun. 85	Cox (25), Advance Newhouse (25) (1)	Discovery Holding Co (2)
Discovery En Español	Oct. 98	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Discovery Health	Jul. 98	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Discovery HD Theatre	Jun. 02	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Discovery Home	Oct. 96	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Discovery Kids	Oct. 96	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Discovery Times	Oct. 96	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Animal Planet	Oct. 96	Cox (5), Advance Newhouse (25)	Discovery Holding Co
BBC America	Mar. 98	Cox (25), Advance Newhouse (25)	Discovery Holding Co
BBC World News	Jul. 06	Cox (25), Advance Newhouse (25)	Discovery Holding Co
FiT TV	Jan. 04	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Military Channel	Jul. 98	Cox (25), Advance Newhouse (25)	Discovery Holding Co
The Learning Channel (TLC)	Nov. 80	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Travel Channel	Feb. 87	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Science Channel	Oct. 96	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Discovery Travel and Living (Viajar y Vivir – en Español)	2006	Cox (25), Advance Newhouse (25)	Discovery Holding Co
Discovery Kids en Español	2006	Cox (25), Advance Newhouse (25)	Discovery Holding Co

Joint Ventures and Other Vertically Integrated Networks			
iN DEMAND (8 multiplexed channels)	Nov. 85	Comcast (54.1), Time Warner (30.3), Cox (15.6)	
iN DEMAND HD1 (also called iNHD)	Sep. 03	Comcast (54.1), Time Warner (30.3), Cox (15.6)	

**Notes:**

(1) In 2006, Liberty Media spun off the Discovery Holding Company (“DHC”). However, John Malone, Chairman of Liberty Media, is also Chairman and CEO of Discovery Holding Company. Liberty Media no longer has any ownership interest in DHC and DHC is currently an independent publicly-traded company.

(2) On December 14, 2006, Time Warner announced that it would acquire certain networks from Claxson. While the deal has not officially closed yet, we list them here because the announcement occurred in 2006. Time Warner, Inc., *Turner Broadcasting System, Inc. To Acquire Claxson Interactive Pay Television Networks in Latin America* (press release), Dec. 14, 2006.

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TABLE C-2

**National Video Programming Services  
Not Affiliated with a Cable MSO  
(By Affiliation)**

Programming Service	Launch Date	Ownership by "Other" Media Entity <sup>(1)</sup>
A&E (Arts & Entertainment)	Feb. 84	Disney, NBC-Universal, Hearst
A&E HD	Sep. 06	Disney, NBC-Universal, Hearst
ABC Family	Apr. 77	Disney
The Africa Channel	Sep. 05	
America's Store <sup>(2)</sup>	Sep. 86	Liberty Media
American Life	Feb. 85	
Angel One		Dominion Video Satellite
Angel Two		Dominion Video Satellite
Anime Network	Dec. 02	
BabyFirst TV	2006	
Beauty & Fashion Channel	Jan. 05	
BET - Black Entertainment Television	Jan. 80	Viacom
BET Gospel	Jul. 02	Viacom
BET Hip Hop	Jul. 02	Viacom
BET J (formerly BET on Jazz)	Jan. 96	Viacom
Biography Channel	Nov. 98	Disney, NBC-Universal, Hearst
BlackBelt TV		
Black Family Channel <sup>(3)</sup>	Nov. 99	
Bloomberg Television	Jan. 95	
Bravo	Dec. 80	NBC-Universal
BYUTV	Jan. 00	
Church Channel	Jan. 02	Trinity Broadcasting Network
Classic Arts Showcase	May 94	
Club Jenna (formerly The Hot Network)	Mar. 99	
CMT - Country Music Television	Mar. 83	Viacom
CMT - Pure Country (formerly VH1 Country)	Aug. 98	Viacom
CNBC	Jul. 89	NBC-Universal
CNBC World	Apr. 89	NBC-Universal
CoLours TV	Dec. 01	

Comedy Central	Apr. 91	Viacom
Cornerstone Television	Apr. 79	
Crime & Investigation Network	Feb. 2007	Disney, NBC-Universal, Hearst
C-SPAN	Mar. 79	(4)
C-SPAN2	Jun. 86	(4)
C-SPAN3	Sep. 97	(4)
CSTV (College Sports Television)	Apr. 03	CBS Corporation
Current TV	Aug. 05	
Daystar Television Network	Dec. 98	Daystar Television Network
Deep Dish TV	Jan. 86	
Disney Channel	Apr. 83	Disney
DIY (Do-It-Yourself Network)	Dec. 94	EW Scripps
Documentary Channel	Jan. 06	
Encore	Apr. 91	Liberty Media
Encore HD	Mar. 04	Liberty Media
Encore Action	Sep. 94	Liberty Media
Encore Drama	1994	Liberty Media
Encore Love (also called Encore Love Stories)	Jul. 94	Liberty Media
Encore Mystery (also called Encore Mysteries)	Jul. 94	Liberty Media
Encore WAM!	Sep. 94	Liberty Media
Encore Westerns	Jul. 94	Liberty Media
ESPN	Sep. 79	Disney, Hearst
ESPN2	Oct. 93	Disney, Hearst
ESPN2 HD		Disney, Hearst
ESPN Classic	May 95	Disney, Hearst
ESPN HD	Mar. 03	Disney, Hearst
ESPNNews	Nov. 96	Disney, Hearst
ESPN PPV		Disney, Hearst
ESPNU	Mar. 05	Disney, Hearst
EWTN: Global Catholic Network (also known as Eternal Word Television Network)	Aug. 81	
Faith Television Network	Jul. 02	
Familyland Television Network	Nov. 99	
Family Net	May 00	
FEC/PAEC		

Fine Living	Mar. 02	EW Scripps
Flix (a Showtime Network)	Aug. 92	CBS Corporation
Food Network	Nov. 93	EW Scripps
Food Network HD	2006	EW Scripps
Fox Movie Channel	Nov. 94	News Corp.
Fox News Channel	Oct. 96	News Corp.
Fox Reality	May 05	News Corp.
Fox Sports Net	Nov. 97	News Corp.
FSN HD		News Corp.
Fox Soccer Channel (formerly Fox Sports World)	Nov. 97	News Corp.
Free Speech TV (FSTV)	Jun. 95	
Fresh! (formerly Spice Network)	May 89	
Fuel	Jul. 03	News Corp.
Funimation Channel	Jun. 06	
FX	Jun. 94	News Corp.
Game Show Network (GSN)	Dec. 94	Liberty Media
Gems TV		
God TV	Oct. 06	
Good Samaritan Network	2000	
Gospel Music Channel	Oct. 04	
Great American Country	Dec. 95	EW Scripps
Guardian Television Network	1976	
Hallmark Channel	Sep. 98	Liberty Media
Hallmark Movie Channel	Jan. 04	Liberty Media
HDNET	Sep. 01	
HDNET Movies	Jan. 03	
Health & Human Services Television		
Healthy Living Channel	Jan. 04	
here! TV	Oct. 04	
HGTV - Home & Garden Television	Dec. 94	EW Scripps
HGTV HD	Apr. 06	EW Scripps
History Channel	Jan. 95	Disney, NBC-Universal, Hearst
History International (also called History Channel International)	Nov. 98	Disney, NBC-Universal, Hearst
Home Preview Channel		

Home Shopping Network (HSN)	Jul. 85	Liberty Media
Horse Racing TV	Dec. 02	
Hustler TV	Apr. 04	
iDrive TV	Apr. 06	
ImaginAsian TV	Aug. 04	
IndiePlex (a MoviePlex Network)	Apr. 06	Liberty Media
Inspirational Life Television (I-LIFETV)	Jun. 98	
Inspirational Network (INSP)	Apr. 90	
Ion Television (formerly i-Independent Television)	Aug. 98	NBC-Universal, Ion Media (formerly Paxson)
i-Shop TV	Feb. 01	
JCTV	Nov. 02	Trinity Broadcasting Network
Jewelry Television	Oct. 93	
Kids Sports News Network	Oct. 05	
KTV – Kids and Teens Television/Spirit Television		Dominion Video Satellite
Liberty Channel	Sep. 01	
Lifetime Movie Network	Jul. 98	Disney, Hearst
Lifetime Real Women	Aug. 01	Disney, Hearst
Lifetime Television	Feb. 84	Disney, Hearst
Lime <sup>(5)</sup>		
Link TV	Nov. 96	
Logo	Jun. 05	Viacom
Mav TV – Mav’rick Entertainment Network	Oct. 04	
Mens2 Shopping Network		
Men’s Outdoors and Recreation Channel	2006	
MHD (an MTV Network)	Nov. 05	Viacom
Military History Channel	Apr. 05	Disney, NBC-Universal, Hearst
Movie Mania (formerly B Mania)	Nov. 00	
Movieola – The Short Film Network	Sep. 01	
MoviePlex	Oct. 94	Liberty Media
MSNBC	Jul. 96	NBC-Universal
MTV	Aug. 81	Viacom
MTV 2	Dec. 98	Viacom
MTV Chi	Dec. 05	Viacom
MTV Desi	Jul. 05	Viacom

MTV Hits	May 02	Viacom
MTV Jams	May 02	Viacom
MTV K		Viacom
NASA Television	Jul. 91	
National Geographic Channel	Jan. 01	News Corp.
National Geographic Channel HD		News Corp.
NBA TV	Nov. 99	
NBA TV HD		
NFL Network	Nov. 03	
NFL Network HD		
Nick 2 (also called Nick Too)	May 98	Viacom
Nickelodeon-Games & Sports (also called GAS)	Mar. 99	Viacom
Nickelodeon/Nick at Nite	Apr. 79	Viacom
Nicktoons	Jan. 99	Viacom
Noggin/The N	Feb. 99	Viacom
Northern Arizona University / University House	Jan. 00	
NTN Buzztime (formerly Buzztime Entertainment)	1994	
NRB Network		
Outdoor Channel	Apr. 93	
Outdoor Channel 2HD		
Ovation: The Arts Network	Apr. 96	(6)
Oxygen	Feb. 00	(7)
Pentagon Channel	May 04	
PIN (Product Information Network)	Apr. 94	
Playboy TV	Nov. 82	
Playboy HD		
Pleasure Channel (a TeN Network)		
The Prayer Channel		
QVC	Nov. 86	Liberty Media
Reelz		
Research Channel	2000	
Resorts & Residence TV		
RetroPlex (a MoviePlex Network)	Apr. 06	Liberty Media
RFD TV	Dec. 00	
Safe TV		

Sci-Fi Channel	Sep. 92	NBC-Universal
Shop at Home	Jun. 86	
Shop NBC	Oct. 91	NBC-Universal
Shorteez (formerly Spice 2)	1999	
Showtime	Jul. 76	CBS Corporation
Showtime Beyond	Sep. 99	CBS Corporation
Showtime Extreme	1998	CBS Corporation
Showtime Family (also called Showtime Family Zone)	Mar. 01	CBS Corporation
Showtime HD		CBS Corporation
Showtime Next	Mar. 01	CBS Corporation
Showtime Showcase	Jul. 01	CBS Corporation
Showtime Too	2001	CBS Corporation
Showtime Women	Mar. 01	CBS Corporation
Sleuth	Jan. 06	NBC-Universal
Smile of a Child TV	Dec. 05	Trinity Broadcasting Network
SOAPNet	Jan. 00	Disney
Soundtrack Channel	Mar. 02	
Speed Channel	Jan. 96	News Corp.
Spice HD		
Spice: Xcess (formerly Hot Zone)	Mar. 99	
Spike TV	Mar. 83	Viacom
Sportsman Channel	Apr. 03	
Starz!	Mar. 94	Liberty Media
Starz! Cinema	May 99	Liberty Media
Starz! Comedy	Mar. 94	Liberty Media
Starz! Edge	Mar. 96	Liberty Media
Starz! HD	Dec. 03	Liberty Media
Starz! In Black (formerly Black Starz!)	Feb. 97	Liberty Media
Starz! Kids & Family	May 99	Liberty Media
Sundance Channel	Feb. 96	CBS Corporation, NBC-Universal
TBN - Trinity Broadcasting Network	May 73	Trinity Broadcasting Network
TCT Network		
TeN: The Erotic Network	Sep. 98	
TeN Blox	Jan. 03	
TeN Blue	Jan. 03	

TeN Clips	May 00	
TeN Xtsy		
The Tennis Channel	May 03	
Three Angels Broadcasting Network	Nov. 86	
TMC: The Movie Channel	Dec. 79	CBS Corporation
TMC HD	Dec. 03	CBS Corporation
TMC XTRA	1997	CBS Corporation
Toon Disney/jetix	Apr. 98	Disney
Total Living Network		
TV Games Network – TVG Interactive Horse Racing	Jul. 94	
TV Guide Channel	Jan. 88	News Corp.
TV Guide Interactive	Oct. 96	News Corp.
TV Land	Apr. 96	Viacom
TVN Entertainment PPV	Feb. 98	
TVU/TVU Live		
Universal HD (formerly Bravo HD+)	Dec. 04	NBC-Universal
UCTV Channel (University of California)	Jan. 00	
USA Network	Apr. 80	NBC-Universal
VH1	Jan. 85	Viacom
VH1 Classic	May 00	Viacom
VH1 Soul	Aug. 98	Viacom
VTV: Varsity Television	Jan. 03	
The Water Channel		
Wealth TV		
Wealth TV HD		
Weather Channel	May 82	Landmark Communications
Weatherscan Local	Oct. 99	Landmark Communications
WGN Superstation	Nov. 78	Tribune Company
World Harvest Television	Aug. 92	
The Word Network	Feb. 00	
The Worship Network	1992	

<b>Spanish Language Spanish/Latin American Cultures</b>		
AYM Sports	Nov. 03	
Azteca America	Aug. 04	
Bandamax	May 03	Univision
Canal Uno Internacional (also called Canal 1)		
Canal 24 Horas	Jun. 99	
Canal 52		
Caracol TV		
Casa Club TV	Jul. 97	
CCTV-E&F		
Cine Latino	Jun. 94	
Cine Mexicano	Nov. 04	
De Película	May 03	Univision
De Pelicula Clasico	May 03	Univision
DOCU TVE	1989	
Ecuavisa Internacional		
ESPN Deportes	Jan. 04	Disney, Hearst
EWTN en Español		
Fox Sports en Español	Nov. 96	News Corp.
Galavision	Oct. 79	Univision
Gol TV	Mar. 03	
Grandes Documentales	1996	
History Channel en Español	May 04	Disney, NBC-Universal, Hearst
HITN	Jul. 87	
La Familia	May 02	
Latele Novella Network		
Latinoamerica TV (Latin TV)		
Maria Vision		
Mexicanal	Aug. 05	
Mexico 22		
Momentum TV		
MTV Tres (formerly MTV Español)	Aug. 98	Viacom
Mun2	Oct. 01	NBC-Universal
NDTV Color Vision		

Once Mexico		
Playboy en Español	Nov. 96	
Puma TV	1997	
Ritmoson Latino	May 03	Univision
SiTV	Feb. 04	(8)
¡Sorpresa!	Mar. 03	
Super Canal		
Super Canal Caribe		
Sur	Aug. 91	
Sur Mexico		
Sur Peru		
TBN Enlace USA	May 02	Trinity Broadcasting Network
Television Española Internacional (TVE Internacional)		
Telefe Internacional	Apr. 90	
Telefutura	Jan. 02	Univision
Telehit	May 03	Univision
Telemundo	Jan. 87	NBC-Universal
Telemundo Puerto Rico	Mar. 00	NBC-Universal
Toon Disney en Español		Disney
TV Chile		
TV Colombia		
TV Venezuela		
TyC Sports		
Univision	Sep. 96	Univision
Utilisima Satelital / Ultisima	Mar. 96	
Vene Movies		
VH Uno	Nov. 99	Viacom
Video Rola	1998	
WAPA America		
<b>Chinese</b>		
ATV Home Channel America		
Beijing TV (BTV)		
CCTV-4 (China Central Television)	1995	
CCTV-9		
CCTV Entertainment		

CCTV Opera		
China Movie Channel (CMC)		
Chinese Cinema		
Chinese Channel	Dec. 04	
Chinese Movie Channel		
Chinese Prime		
CTS		
CTV		
CTI Zhong Tian Channel	1995	
CYRTV		
Dragon TV	Oct. 03	
ET China		
ET Drama		
ET Global		
ET News		
Fujian Southeast TV		
Guandong Southern TV		
Hunan Satellite TV		
ICable		
The Jade Channel		
JET TV International		
Jiangsu International Channel		
Pacvia TV		
Phoenix Info News		News Corp.
Phoenix North American Chinese Channel		News Corp.
SETI		
Sky Link TV		
Sky Link 2		
TTV		
TVBS		
YoYo TV		

<b>Korean</b>		
Arirang TV		
BTN WOW-TV		
CTS (Korean Christian Television)		
JSTV		
KBS World		
Korean Channel		
MBC America (Munhwa Broadcasting Corp.)	2002	
Media Korea		
MKTV		
Ongamenet		
SBS/SBS Plus		
tvK 24	Sep. 04	
YTN		
<b>Tagalog-Filipino</b>		
ABS-CBN The Filipino Channel (formerly known as the Filipino Channel)	Feb. 98	
ABS-CBN News Channel		
Cinema One Global		
GMA Pinoy		
NBN America		
The Mabuahy Channel		
Pinoy Central TV		
RPN USA		
Viva TV		
<b>South Asian</b>		
AAJTAK		
AASTHA Broadcasting Network		
Alpha ETC Punjabi	2005	
ATN Bangla		
B4U Movies		
B4U Music		
Bangladesh Channel		
Channel-I		
DD India		

ETV Gujarati		
ETV Telegu		
ETV Bangla		
Filmy		
Gemini TV		
Headlines Today		
ITV / ITV Gold	Apr. 86	
Kairali TV		
KTV		
NDTV		
NTV Bangla		
Ravi Panjabi Network		
Saigon Broadcasting Television Network	Feb. 02	
Sahara One		
Sahara Samay		
Set Max		
Sony Entertainment Television Asia		
Star News		News Corp.
Star Plus		News Corp.
Star One		News Corp.
Sun TV		
Surya TV		
Teja TV		
TV Asia	Jul. 91	
Udaya TV		
Vijay		News Corp.
VHN (Vietnamese)		
Zee Gold (formerly called Zee Cinema)	1999	
Zee Gujarati	2005	
ZEE TV	1998	
<b>Japanese</b>		
Nippon Golden Network	Jan. 82	
TV Japan	Jul. 91	
<b>Urdu</b>		
Ary Digital		

Ary One World		
GeoTV		
Indus Music		
Indus Vision		
PTV Prime		
QTV		
The Musik		
<b>Middle Eastern Language and Culture</b>		
Abu Dhabi		
Al Arabiaya		
Al Jazeera		
Al Zikr		
The Arabic Channel	Apr. 91	
ART America (Arab Radio & Television America)	1999	
ART Movies		
ART Music		
Bridges TV	Nov. 04	
Dandana TV		
Dubai Satellite Channel		
Dubai Sports		
ESC-1		
Future TV		
IQRAA		
LBC		
Mazzika Zoom		
Melody Arabia		
Middle East Broadcasting Company		
NBN		
New TV		
Nile Drama		
Noursat		
Rang-a-Rang (Iranian)	2003	
Rotana Cinema		
Rotana Moossika		
Rotana Zaman		

Orbit Al-Yawm		
Orbit Seen		
<b>Farsi</b>		
Tapesh		
T2		
<b>Hebrew</b>		
The Israeli Network		
<b>Polish</b>		
ITVN		
Kino Polska		
Polsatz 2 International		
Tele 5		
TV Polonia	2003	
TVP 3		
TVN 24		
<b>Armenian</b>		
Armenia TV		
<b>Russian</b>		
Channel One Russia Worldwide Network	2003	
Dom Kino		
ITN – Russian Family Network		
Muzika Pervogo		
NTV America	Oct. 02	
RTR Planeta		
RTVI		
RTVI Plus		
Russian TV Network of America (RTN)	Aug. 00	
TVCI		
Vreyma: The Retro Channel		
<b>Ukrainian</b>		
Inter+		
<b>Italian</b>		
Leonardo World		
RAI International	1999	
Sky TG24		

Video Italia		
<b>French/African</b>		
3A Telesud		
African Independent Television (AIT)	2004	
RFI		
Trace TV		
TV5 (French)	Jan. 98	
<b>German</b>		
Deutsche Welle (DW-TV)		
Prosiebensal.1 Welt		
<b>Greek</b>		
Alter Globe		
Antenna Gold		
Antenna Satellite		
Blue		
ERT-SAT		
Mega Cosmos		
Greek Channel/National Greek Television (NGT)	Dec. 87	
<b>Portuguese</b>		
PFC		
Record International		
RPTI		
Sic Noticias		
SPT		
TV Globo Internacional		
<b>Caribbean</b>		
Hype TV		

Multinational		
Euro News		
SCOLA	Aug. 87	
MHz Worldview	Dec. 06	

**Notes:**

(1) Other media entity is defined as a DBS operator, broadcast network, or broadcast television station licensee.

Liberty Media programming interests are listed because of Liberty's ownership interest in News Corp. Although Viacom is no longer the parent company of the CBS and UPN broadcast networks, we list it because it continues to hold ownership interests in some of the most popular and most widely distributed networks (e.g., MTV, Nickelodeon).

(2) On Friday, January 5, 2007, HSN revealed that America's Store will cease all broadcasting on April 3, 2007. Wikipedia, America's Store, at [http://en.wikipedia.org/wiki/America%27s\\_Store](http://en.wikipedia.org/wiki/America%27s_Store) (visited Feb. 12, 2007).

(3) As of April 30, 2007, the Black Family Channel will cease operations. See R. Thomas Umstead, *Black Family Channel to Close its Doors*, MULTICHANNEL NEWS, Apr. 24, 2007.

(4) C-SPAN is a private, non-profit company, created in 1979 by the cable television industry to provide public access to the political process. C-SPAN receives no government funding; operations are funded by fees paid by cable and satellite affiliates who carry C-SPAN programming. The C-SPAN Board of Directors is comprised of executives from large and small cable television operating companies. While the board establishes network policy and provides financial oversight, it is not involved in C-SPAN's editorial decision-making. See C-SPAN, *About Us: Corporate Information*, at <http://www.c-span.org/about/index.asp?code=About> (visited Feb. 20, 2007).

(5) Lime TV (formerly called Wisdom Television) will cease operations by the end of February 2007. See Kent Gibbons, *Lime TV Going Dark*, MULTICHANNEL NEWS ONLINE, Jan. 29, 2007, at <http://www.multichannel.com/article/CA6410842.html> (visited Feb. 20, 2007). (See also <http://www.lime.com/>).

(6) Time Warner currently holds less than 5 percent equity in Ovation, and thus is listed as an unaffiliated network this year. See *Ovation*, at <http://www.ovationtv.com/newsdetails.aspx?release=artnetwork.mht&r=4&l=1>

(7) Both Charter Communications' parent company Vulcan Ventures and Time Warner, Inc. subsidiary AOL have equity interests in Oxygen Media. AOL, a wholly owned subsidiary of Time Warner, currently holds more than a five percent equity share in Oxygen; however, we have no information with regard to the voting status of that investment. For purposes of the channel occupancy rules (47 C.F.R. §76.504), nonvoting stock is not attributable to an MSO. For purposes of the program access rules (47 C.F.R. §§76.1000-1200), nonvoting stock is attributable to an MSO if the company holds more than a five percent equity interest. See Vulcan Capital, *Other Portfolio Holdings*, at <http://capital.vulcan.com/Template.aspx?contentId=7> (visited Feb. 16, 2007); AOL Time Warner, at <http://www.timewarner.com/corp/newsroom/pr/0,20812,668625,00.html> (visited Feb. 16, 2007); Oxygen, *About Oxygen*, at <http://www.oxygen.com/basics/about.aspx> (visited Feb. 15, 2007); Top Tech News, *Oxygen Media Draws \$100M Breath*, Dec. 4, 2000, at [http://www.toptechnews.com/story.xhtml?story\\_id=5685](http://www.toptechnews.com/story.xhtml?story_id=5685) (visited Feb. 16, 2007).

(8) Time Warner Investments currently holds more than a 5 percent equity interest in SiTV. However, we have no information with regard to the voting status of that equity investment, thus we list it as nonvertically integrated. See note (3); see also Time Warner Inc., [http://www.timewarner.com/corp/businesses/detail/tw\\_investments/index.html](http://www.timewarner.com/corp/businesses/detail/tw_investments/index.html) (visited Feb. 20, 2007).

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TABLE C-3

**Regional Video Programming Services  
By Affiliation**

Programming Services	Launch Date	MSO Ownership (%)	Other Media Entity Ownership
Altitude Sports & Entertainment	Sep. 04		
Arizona News Channel	Nov. 96	Cox (50) <sup>(1)</sup>	Belo Corp.
Bay News 9	Sep. 97	Bright House (Advance Newhouse) (100)	
Bay News 9 en Español		Bright House (Advance Newhouse) (100)	
Bravesvision (Atlanta) <sup>(2)</sup>	Jul. 03	Comcast (100)	
California Channel	Feb. 91		
Capital News 9-Albany New York	Oct. 02	Time Warner (100)	
Central Florida News 13 (CFN 13)	Oct. 97	Bright House (Advance Newhouse) (100)	
CFN13 - News 13 Weather Now		Bright House (Advance Newhouse) (100)	
Channel 4 San Diego	1997	Cox (100)	
ChicagoLand Television News (CLTV)	Jan. 93		
CN8-The Comcast Network	Oct. 97	Comcast (100)	
Comcast Entertainment TV (Denver)	Jun. 04	Comcast (100)	
Comcast Local (Detroit) <sup>(3)</sup>	Aug. 04	Comcast (100)	
Comcast SportsNet Philadelphia	Oct. 97	Comcast (85.1)	
Comcast SportsNet Chicago	Oct. 04	Comcast (30)	
Comcast SportsNet Mid-Atlantic (also called CSN Baltimore-Washington)	Apr. 84	Comcast (100)	
Comcast SportsNet West (also called CSN Sacramento)	Nov. 04	Comcast (100)	
Comcast / Charter Sports Southeast (CSS) <sup>(3)</sup>	Apr. 84	Comcast (73.8), Charter (26)	
County Television Network San Diego	Jul. 96		
Cowboys TV (Dallas) <sup>(4)</sup>	Sep. 04	Comcast (100)	
Cox Sports Television	Oct. 02	Cox (100)	
Denver Channel 207			
Ecumenical Television Channel	1983		
Falconvision (Atlanta) <sup>(4)</sup>	Sep. 04	Comcast (100)	
Fox College Sports Atlantic			News Corp.
Fox College Sports Central			News Corp.

Fox College Sports Pacific			News Corp.
Fox Sports Net Arizona	Sep. 96		News Corp.
Fox Sports Net Bay Area	Apr. 90	Cablevision (60)	News Corp.
Fox Sports Net Detroit	Sep. 97		News Corp.
Fox Sports Net Florida	1989		News Corp.
Fox Sports Net Midwest	Sep. 97		News Corp.
Fox Sports Net New England	Jan. 88	Cablevision (50) Comcast (50)	
Fox Sports Net New York	1989	Cablevision (100)	
Fox Sports Net North	Mar. 89		News Corp.
Fox Sports Net Northwest	Nov. 88		News Corp.
Fox Sports Net Ohio	Feb. 89		News Corp.
Fox Sports Net Pittsburgh	Apr. 86		News Corp.
Fox Sports Net Rocky Mountain	Nov. 88		News Corp.
Fox Sports Net South	Aug. 90		News Corp.
Fox Sports Net Southwest	Jan. 83		News Corp.
Fox Sports Net West	Oct. 85		News Corp.
Fox Sports Net West 2 (also called FSN Prime Ticket)	Jan. 97		News Corp.
Kansas 22 Now (Kansas Newschannel)		Cox (50) <sup>(1)</sup>	
Las Vegas One News	Apr. 98	Cox (33.3) <sup>(1)</sup>	
Local News on Cable (LNC) – Hampton	Feb. 97	Cox (33.3) <sup>(1)</sup>	Belo Corp.
Madison Square Garden Network (MSG)	Oct. 69	Cablevision (100)	
MSG HD		Cablevision (100)	
¡Mas! Arizona		Cox (50) <sup>(1)</sup>	Belo Corp.
MetroSports – Kansas City, Mo.	Feb. 04	Time Warner (100)	
Michigan Government Television	Jul. 96		
Mid-Atlantic Sports Network (MASN)			
New England Cable News (NECN)	Mar. 92	Comcast (50)	Hearst
New England Sports Network (NESN)	Mar. 84		New York Times <sup>(5)</sup>
News 8 Austin	Sep. 99	Time Warner (100)	
News 8 Radar Now <sup>(6)</sup>	2006	Time Warner (100)	
News 8 Traffic Now <sup>(6)</sup>	2006	Time Warner (100)	
News 8 Non-Stop Weather <sup>(6)</sup>	2006	Time Warner (100)	
News 8 Non-Stop Weather en Español	2006	Time Warner (100)	
News 8 Non-Stop Sports <sup>(6)</sup>	2006	Time Warner (100)	

News 10 Now – Syracuse, N. Y.	Nov. 03	Time Warner (100)	
News 12 Connecticut	Jun. 95	Cablevision (100)	
News 12 Bronx	Jun. 97	Cablevision (100)	
News 12 Brooklyn	2005	Cablevision (100)	
News 12 Hudson Valley	2005	Cablevision (100)	
News 12 Long Island	Dec. 86	Cablevision (100)	
News 12 New Jersey	Mar. 96	Cablevision (100)	
News 12 Traffic & Weather (formerly Metro Traffic & Weather)	2005	Cablevision (100)	
News 12 Westchester	Nov. 95	Cablevision (100)	
News 14 Carolina (Charlotte)	Mar. 02	Time Warner (100)	
News 14 Carolina (Raleigh)	Mar. 02	Time Warner (100)	
News Channel 3 Anytime			
News Channel 5+ (Nashville)	Sep. 96		Landmark Communications
News Channel 8 (Washington, DC)	Oct. 91		Allbritton Communications
News Now 53 (Oklahoma City)	Jun. 97	Cox (50) <sup>(1)</sup>	
News Now 53 (Tulsa)	Jun. 97	Cox (50) <sup>(1)</sup>	
News on One (Omaha)	Oct. 97		
Newswatch 15 (New Orleans)	Oct. 99	Cox (50) <sup>(1)</sup>	Belo Corp.
NorthWest Cable News (NWCN)	Dec. 95		Belo Corp.
NY 1 News	Sep. 92	Time Warner (100)	
NY 1 Noticias	Jun. 03	Time Warner (100)	
Ohio News Network (ONN)	May 97		
Pennsylvania Cable Network (PCN)	Sep. 79		
Pittsburgh Cable News Channel (PCNC)	Jan. 94	Comcast (30)	
Regional News Network (RNN)	Dec. 95		
Rhode Island News Channel	Sep. 98	Cox (65) <sup>(1)</sup>	
R News – Rochester, NY	Jul. 95	Time Warner (100)	
San Diego's News Channel 15	Jan. 97	Cox (50) <sup>(1)</sup>	McGraw-Hill Broadcasting Group
Six News Now (Sarasota)	Jul. 95		New York Times
SportsNet New York	2006	Comcast (8.2), Time Warner (26.83)	
SportSouth (formerly Turner South)	Oct. 06		News Corp.
SportsTime Ohio	Apr. 06		
SunSports (formerly Sunshine Network)	Mar. 88		News Corp.

10 News 2 (Knoxville)			
Texas Cable News	Jan. 99		Belo Corp.
TV33 – Cleveland Headline News	Dec. 95		
24/7 News Channel			Belo Corp.
Washington Korean TV (WKTV)	1985		
Yankee Entertainment Sports Network (YES)	Mar. 02		
YES-HD			

**Notes:**

- (1) Cox news channel partnerships are partnerships between Cox local cable systems and local broadcasters that program each channel. Cox local system partnerships between Mas! Arizona and Newswatch 15 were dissolved on March 31, 2007.
- (2) Bravesvision ceased operation at the end of the 2006 baseball season.
- (3) Both Comcast Local Detroit and Comcast/Charter Sports Southeast provide sports programming, neither provide professional sports programming, except for women's professional basketball.
- (4) Cowboys TV and Falconsvision ceased operations at the end of the 2006-2007 football season.
- (5) The Boston Red Sox are a co-founder and the majority owner (80 percent) of NESN. NESN is considered a unit of the New York Times Company's group of TV stations because it is part of the Red Sox ownership group.
- (6) Three of News 8 Austin's news services (News 8 Radar Now, Traffic Now and Non-stop Weather) are noncommercial displays with audio feeds added by the News 8 Austin newsroom. News 8 Non-stop Sports is a noncommercial 24/7 local and national sports headline and highlight service with feeds from other sports news providers.

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TABLE C-4

## Planned Programming Services

Programming Service	Planned Launch Date, If Announced
29HD Network	
2Hearts TV	
Africast Television Network	Available for carriage
The America Channel	Available for carriage
America National Network	
AMC's American Pop	
American David	
Auto Channel	
Bingo TV	
Black Television News Channel	
Blue Highways TV	Currently carried as VOD
Boating Channel	
BOB VOD – South Asian TV	Currently carried as VOD
Book Shopping TV	
Box TV – The Boxing Network	
Career Entertainment Television	
Casino & Gaming Television	
Channel Zero	
Chiller Network	NBC-Universal
Classified Channel TV	
Concert	
The Crime Channel	
CSN-Cable Science Network (also known as The Science Network)	
Destiny Channel	
Edge TV	
Election Channel	
Employment Channel	
Fad TV (Fashion & Design Television)	
Epic Sports Channel	
Eurocinema	

ExpoTV	
FAD TV: Fashion and Design Television	
Fangoria	
Film Festival Channel	
Gambling Channel	
Golden Eagle Broadcasting	Was previously carried by Sky Angel
H2O – Hip Hop on Demand	Currently carried as VOD
Harmony Channel	
Havoc Television	Currently carried as VOD
Home Improvement Channel	
The Horror Channel	
ION Life	
JTV (Jewish TV)	
The Men’s Channel	
The Motorcycle Channel	
Music Plus TV	
Nano TV	Currently carried as VOD
No Good Television	
Oasis TV	Currently carried as VOD
Orb TV	
Playgirl TV	Currently carried as VOD
Puppy Channel	
Qubo	
Real Estate Channel	
The Real Hip Hop Network	
S Arts [Sovereign Media]	Available for carriage
S Caribbean Net	Available for carriage
S Comedy	Available for carriage

S Glory	Available for carriage
S Music	Available for carriage
S Sports	Available for carriage
S Worldcast	Available for carriage
Senior Citizens Television Network	Available for carriage
Shalom TV	Available for carriage
Short TV	Available on mobile phones
Southern Entertainment Television (SET 1)	Available for carriage
SET 2: Bluegrass Music	Available for carriage
SET 3: Classic Black Gospel	Available for carriage
Studio 4 Fitness	Currently carried as VOD
Studio 4 Kids	Currently carried as VOD
Studio 4 Learning	Currently carried as VOD
Tempo (An MTV Network)	
Theater Channel	
Tickets On Demand (The Ticket Channel)	
U.S. Military Television Network	
Urban Broadcasting Company (UBC-TV)	
Voy Network	Currently carried as VOD
Wedding TV	
Wheels TV	Currently carried as VOD
Wicked TV	Currently carried as VOD
Wine Network TV	Available for carriage
XY.TV	
Your Music Network	

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TABLE C-5

## Top 20 Programming Services by Subscribership

Rank	Programming Network	Number of Subscribers (Mil.) <sup>(1)</sup>	Ownership Interest in Network
1	Discovery Channel	91.2	Cox, Advance/Newhouse, Discovery Holding Co.
2	ESPN	91.0	Disney, Hearst
3	CNN	90.9	Time Warner
4	USA Network	90.8	NBC-Universal
4	TNT	90.8	Time Warner
6	C-SPAN	90.7	National Cable Satellite Corporation <sup>(2)</sup>
7	Lifetime Television	90.6	Disney, Hearst
8	ESPN2	90.5	Disney, Hearst
8	The Weather Channel	90.5	Landmark
8	Nickelodeon	90.5	Viacom
8	TBS	90.5	Time Warner
12	Spike TV	90.4	Viacom
12	A&E	90.4	Disney, Hearst, NBC-Universal
14	QVC	90.3	Liberty Media
14	TLC	90.3	Cox, Advance Newhouse, Discovery Holding Company
16	Headline News	90.1	Time Warner
17	MTV	89.9	Viacom
17	Home & Garden TV	89.9	EW Scripps
17	ABC Family Channel	89.8	Disney
20	History Channel	89.7	Disney, Hearst, NBC-Universal
20	Toon Disney	89.7	Disney
20	VH1	89.7	Viacom

**Notes:**

<sup>(1)</sup> In addition to cable systems, other MVPDs such as DBS (direct broadcast satellite) systems, wireless cable (or BRS) systems, PCOs (private cable operators or SMATV) services, and HSD (home satellite dish) program providers may distribute these signals. Subscriber figures may include these noncable MVPD services.

<sup>(2)</sup> C-SPAN is a private, non-profit company, created in 1979 by the cable television industry to provide public access to the political process. C-SPAN receives no government funding; operations are funded by fees paid by cable and satellite affiliates who carry C-SPAN programming. The C-SPAN Board of Directors is comprised of executives from large and small cable television operating companies. While the board establishes network policy and provides financial oversight, it is not involved in C-SPAN's editorial decision-making. See C-SPAN, *About Us: Corporate Information*, at <http://www.c-span.org/about/index.asp?code=About> (visited Feb. 20, 2007).

**Source:** Kagan Research, LLC, *Network Census: June 30*, Cable Program Investor, July 28, 2006, at 11.

**TABLE C-6  
Top 20 Programming Services by Prime Time Rating**

Rank	Programming Service	Ownership Interest in Network
1	USA Network	NBC-Universal
2	Disney	Disney
3	TNT	Time Warner
4	Nickelodeon	Viacom
5	Adult Swim <sup>(1)</sup>	Time Warner
6	HBO <sup>(2)</sup>	Time Warner
7	Lifetime	Disney, Hearst
8	TBS	Time Warner
9	Nick at Nite <sup>(1)</sup>	Viacom
10	American Movie Classics	Cablevision
11	Cartoon Network	Time Warner
12	Fox News Channel	News Corp.
13	ESPN	Disney, Hearst
14	Spike TV	Viacom
15	FX	News Corp.
16	Discovery Channel	Cox, Advance Newhouse, Discovery Holding Company
17	Comedy Central	Viacom
18	HGTV	EW Scripps
19	Hallmark Channel	Liberty Media
20	MTV	Viacom

**Notes:**

<sup>(1)</sup> For ratings purposes, Nielsen separates the 24-hour network that is comprised of Nickelodeon and Nick at Nite, as well as the 24-hour network that is comprised of Cartoon Network and Adult Swim. We count each 24-hour network once, but follow Nielsen's method for this table.

<sup>(2)</sup> In the past this chart has included basic cable networks only. This year, we are using data directly from Nielsen that includes premium networks when calculating ratings by ranking.

**Source:**

Nielsen Media Research, *Top 50 Cable Networks Primetime, June 2006*.

**STATEMENT OF  
CHAIRMAN KEVIN J. MARTIN**

*Re: Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, MB Docket No. 06-189*

In enacting the Cable Television Consumer Protection and Competition Act of 1992, Congress sought to promote video competition. Competition in the market for video programming serves to improve quality and customer service, increase consumer choice, decrease prices, and promote innovation.

As this year's report reflects, we are continuing to see wired competitors to cable operators enter the market. The Commission has been working consistently to facilitate this type of competitive entry into the video market. Such competition is not only good for consumers of video services (as it is the only form of competition that checks cable prices), but it promotes the deployment of the broadband networks over which the video services are provided. It is my hope that the policies that we have recently put in place – such as prohibiting exclusive contracts between cable operators and owners of multiple dwelling units – will only serve to encourage additional competitive entry. We intend to closely monitor the progress of new entrants and address any issues that we find impede such progress.

As we have in our last reports, this year's Report looks at the evidence regarding whether we have met the statutory test in section 612(g) of the Act. Specifically, the Commission is to determine when (1) "at such time as cable systems with 36 or more activated channels are available to 70 percent of households within the United States" and (2) "are subscribed to by 70 percent of the households to which such systems are available. Several commenters, including CFA, MAP, and AT&T, argued that the test has been met. Others, primarily the cable industry, argue it has not been met. For the first time this year, however, the Commission received data from one of the sources the industry itself relies on, Warren Communications News, that results in finding that the test has been met. Specifically, its data shows that 71.4% of households passed by cable systems offering 36 or more channels subscribe to these systems.

The Commission has used Warren's data for its 70/70 calculations since we started reporting on these benchmarks in the Tenth Annual Report. In both the Tenth and the Eleventh Annual Reports, the Commission reported that data from Warren showed that the second prong of the 70/70 test was 68.9 percent; in the Twelfth Annual Report, the Warren data showed that the second prong was 67.8 percent. We rely on Warren data because it provides information on subscribers and homes passed for cable systems with 36 or more channels as specified in the statute. In addition, Warren collects its data directly from cable television operators or individual cable systems to create a large database of cable industry information. Warren states that it is the only research entity that directly surveys every cable system at least once every year, providing the most complete source of cable data. In fact, the cable systems represented in Warren's database serve 96% of all subscribers nationwide.

Certain parties have urged us to look at Kagan or Nielsen, and we appropriately include those numbers in our Report today. However, these companies, unlike Warren, do not report data for cable systems with 36 or more channels. Thus, neither Kagan nor Nielsen provide the precise data we need to perform the calculation specified by the statute. Moreover, the Kagan estimate regarding the number of households passed by cable, 113,600,000, is greater than the U.S. Census Bureau estimate of 109,450,000 total households. As a result, while the Commission has cited Kagan data in previous Video Competition reports, it has always been clear that it should be used merely as a trend indicator, rather than as a precise estimate for any particular year.

Our Report today also references data from the Commission's price survey data and Form 325, as

we have in years past. However, it is also important to understand that these two sources represent extremely small samples and therefore cannot be relied upon for this purpose. The Commission currently sends questionnaires to only 781 cable systems for its Price Survey (representing only 10.2% of the total 7,634 systems in our database) and collects Form 325 data from approximately 1,100 cable systems (representing only 14.4% of the total 7,634 systems in our database). In contrast, Warren sends questionnaires to all 7,090 cable systems, and states that it has data representing more than 96% of all cable subscribers. Indeed, as NCTA itself argued to the Commission in years past, “Warren’s TV Factbook and online database, not the Commission’s Form 325 data, is relied upon by businesses and researchers for system-specific information about the cable industry.”<sup>979</sup>

While I would have been comfortable relying on the data submitted by Warren, I am pleased that we have determined to avoid the debate in the future about which sources of data are the most accurate and will now receive data from the companies themselves. This will have the added benefit of including the data from sources that even Warren doesn’t include: subscribers to incumbent telephone companies that are providing service as a cable operator. For example, had Warren included data from Verizon, the second prong of the 70/70 test would have been 72%.

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<sup>979</sup> NCTA Comments at 7, CS Docket 98-61 (filed June 30, 1998).

**STATEMENT OF  
COMMISSIONER MICHAEL J. COPPS**

*Re: Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, MB Docket No. 06-189*

Ever since I arrived at the Commission six years ago, I have been deeply concerned about increasing concentration in the cable industry. I simply can't see how American consumers benefit when a handful of vertically-integrated media giants have so much control over so much content. This industry structure provides precious little space for the creative genius of independent content producers and artists. And it has led to prices that continue to rise far faster than inflation.

For years, I have also been troubled by the approach of the FCC's annual video competition report, which I think has unreasonably minimized the harm that increased consolidation has visited upon the American consumer. In particular, I have expressed serious doubts about our reliance on industry-supplied video customer data. Indeed, one of my top priorities here at the Commission has been to improve our data-gathering for *all* the industries we regulate and to ensure that *all* our decisions are grounded in the best available data and analysis.

Now, we have new evidence placed in the record by public interest advocates and at least one industry source that casts real doubt on the validity of existing industry-supplied customer counts. This new evidence indicates that the cable industry may very well have met the 70/70 threshold established by Congress. In light of these facts, I think that the most responsible course of action at this point is for the Commission to act swiftly to compel the industry to open up its books to put this question to rest once and for all.

I want to emphasize that word "swiftly." Today's decision must not be an open-ended invitation to delay. Getting data *in* to the Commission within 60 days doesn't always translate into getting an answer *out*. Accordingly, I would have preferred that the Commission commit in today's item to reaching a 70/70 determination within 45 days of receiving the industry's data.

The lack of programming diversity and competition in the American video services market is a serious problem and must not be left to languish. I sincerely hope that my colleagues and I can move past debates about data and on to the far more important issue of how to ensure a more diverse, democratic, and vigorously competitive American media environment.

**STATEMENT OF  
COMMISSIONER JONATHAN S. ADELSTEIN**

*Re: Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, MB Docket No. 06-189*

I support the Commission's Thirteenth Annual Report on the state of competition in the video programming marketplace. Every year, the purpose of this report is to provide Congress and the American people with the Commission's best and honest assessment of competition in the evolving video marketplace. I support this year's report, but I write separately to address the important issue of whether the 70/70 benchmark in section 612(g) of the Communication Act has been reached.

The Commission's determination regarding the 70/70 benchmark has critical policy implications but, at the same time, is a question of fact. I would have no hesitation to invoke our authority if the evidence clearly justified that the standard had been breached. Many positive initiatives to promote diversity, such as a national baseline PEG requirement, could result. Yet, it's our job to follow the facts, to find the truth wherever it may lead. Congress did not ask us to impose the outcome we might prefer solely based on policy goals, no matter how admirable they may be. Congress asked for an honest assessment. So, I am pleased that the revised version of this Report seeks further comment on this important question and compels all cable providers to provide their data under penalty of law within 60 days.

In order to base our decision on the facts, Commissioners need access to all the facts. Unfortunately, the most important data we have – the FCC's own numbers – were suppressed from the Commissioners until the last minute. I did not learn until after 7:00 pm last night that the FCC's own 2006 survey found that only 54 percent of homes passed subscribe to cable. Similarly, the FCC's cable price survey came in at 55.2 percent penetration.

Based on these newly unearthed facts and the conflicting evidence on the record, I am unable to support a finding that 70 percent of homes passed subscribe to cable at this time. The data is inconclusive. If we were truly searching for the truth, it is inconceivable that our own data would be cast aside without mention. It was just last year that I called for more rigorous data collection by the FCC. To find that this year's FCC data was suppressed casts a long shadow over this endeavor. They tried to hide the ball from their own team.

In every previous year, the Video Competition Report included data from the FCC's "Annual Report of Cable Television Systems," which solicits from the operators the very data needed to determine if 70/70 is met, including subscribership, penetration rates and number of channels available. Yet, it wasn't until yesterday that it became apparent that the data from this year's survey was mysteriously redacted from the draft report we were reviewing.

The draft attempted to rely solely on data from Warren Communications, while disregarding a multitude of other sources included in previous reports. This was especially troubling with respect to our own data from our Annual Report's FCC Form 325. In fact, in the "Supporting Statement" to FCC Form 325, the Commission justifies its request for this information by stating explicitly that it is a more appropriate tool to rely upon than Warren data, acknowledging:

"Basic information concerning cable television system operation is available from commercial sources such as A.C. Nielson and Warren Publishing; however, because this information is not subject to

the accuracy and specificity requirements applicable to a governmental reporting system, the Commission continues to need the information that FCC Form 325 provides.”

While there are always issues with the figures reported to the FCC, we certainly should not ignore it. Cable operators who report to us on Form 325 must certify that their data is true.<sup>980</sup> Cable systems that comprise over 50 million subscribers report to us, or over 75 percent of the total number of subscribers who report subscriber data to Warren or Nielsen. This is a large sample by any measure.

Moreover, the Commission’s attempt to rely solely on data from Warren Communications, while disregarding a multitude of other sources, is troubling. A thorough and transparent analysis of the available data – both from the FCC and independent sources – on cable penetration rates was sorely missing from the initial draft of this item. The Commission has in its possession at least four sources of cable penetration rates that were cited in previous reports: Warren, Nielsen, Kagan and FCC Form 325. In blatant contrast to previous reports, no source but Warren was cited in the initial draft, and it took a majority vote to fix that deficiency. While not determinative, it is noteworthy that all of these sources, except Warren, concluded that current cable penetration rates are less than 70 percent. We also must give careful consideration to new data, added at the last minute to the report, supplied by leading consumer advocates finding that penetration rates exceed 70 percent. I appreciate the efforts of these advocates to advance our understanding of the marketplace.

Our job of ascertaining the facts was made more difficult because the draft cherry-picked only the data that justified the outcome desired, while suppressing other data. I believe that it is our obligation to ensure that our decisions are objective and based on the facts, not outcome-driven for political expediency. Much like our media ownership studies, which are outcome-driven to support the media consolidation agenda, there was an attempt to cook the books on this report.

Just like what occurred in the media ownership proceeding, where studies were suppressed, and others were structured and conducted with the goal of facilitating consolidation, a lack of transparency will undermine the Commission’s credibility and public confidence in the work we do. I fully support the effort to quickly ask all cable operators for their actual numbers. We should have done that already. Of course, we already have data from the vast bulk of cable operators, but if more data would shed light on this, I think we should pursue it aggressively. If the data comes back that the 70/70 test has been met, I would not hesitate to invoke our authority to take positive measures to enhance diversity.

One of the reasons for the embarrassing delay of today’s meeting, and the general disarray in working through these issues, was the effort to push through such an aggressive number of controversial items today without sufficient notice to all Commissioners. Short-circuiting Commission procedures short-changes the American public in the end. This is particularly true given that nothing we are considering today requires immediate action. There are numerous items that would have benefited greatly from more deliberation and care.

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<sup>980</sup> The operator must certify: “I HAVE EXAMINED THIS REPORT, AND THAT ALL STATEMENTS OF FACT CONTAINED THEREIN ARE TRUE, COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, AND ARE MADE IN GOOD FAITH.” False statement can result in imprisonment for up to 5 years.

This is set against a backdrop of unwinding processes here at the Commission. For example, the lack of notice to Commissioners about open meeting dates and items to be considered at these meetings hinders our ability to consider the substantive proposals and to solicit and reflect on public input. Traditionally, going back many years, items are white copied, or identified to Commissioners three weeks in advance so we can prepare, hold proper meetings with affected parties and deliberate among ourselves. Not only were we not white copied for this meeting – the meeting itself was called with less than three weeks notice. The two and a half weeks notice was even far less time than even that, because it included both the Veterans Day and Thanksgiving holidays. It was also truncated by the day we spent on travel for a field hearing in Seattle, which was called with inadequate notice to Commissioners and the public. The problems with the items we consider today were further compounded because massive changes in some items were attempted to be inserted at the last minute.

It may be said that we have a host of issues pending before the Commission and that there is a need to drive our work forward. The Chairman certainly has the right to set the agenda and push us. But given that very volume, and the prodigious work which nobody denies we do given our vast jurisdiction, we need to know in advance which items to focus upon during the short window before open meetings. This is especially true when items are large, complex, and controversial.

Some of the policy goals today are admirable, and I share many of the concerns, for example about cable's market power, that prompted them. But why the rush? Why the effort to steamroll the Commission and the public in order to wrap up a number of items that aren't even time sensitive? Everything could have been done under regular order, with proper notice or on circulation. The only plausible explanation appears to be an obsessive drive to complete the media consolidation agenda by the end of the year, come hell or high water.

But the cover on diversity and localism is a false front. The agenda that was pushed for today was just a fig leaf, it does not provide real answers to the very real problems that permeate the media landscape. And very troubling is the attempt to punish major American companies in the process of dismantling the newspaper-broadcast cross ownership ban. Tribune, long a respected and influential institution of American journalism, has been used as a human shield to provide cover for broader rule changes, even at risk to the life of the hostage itself. Some may ask whether the entire cable industry is a foil today to show we are tough on some big media companies, even as we are forgiving to others.

Were these issues not so important, it might be tempting to admire the improvisational willingness on display here -- using every tool available, abandoning precedent and doing whatever is expedient. But that doesn't mean that there is no alternative.

I came here to be part of the expert agency -- to follow the facts wherever they lead. We cannot cook the books to pursue a political agenda without dismantling our very institution. We simply must act like the expert agency Congress intended, and not squander our precious legacy.

**STATEMENT OF  
COMMISSIONER DEBORAH TAYLOR TATE  
APPROVING IN PART, DISSENTING IN PART\***

*Re: Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, MB Docket No. 06-189*

Since arriving at the FCC, I have been pleased to support policies that have facilitated commercial negotiations, provided incentives for investment, and encouraged competition; all of which hopefully results in real world benefits for consumers, whether through quality, choice, or new advances in technology.

The Annual Video Competition Report is one of the most important that this agency produces for Congress. It is the goal of this Commission to encourage competition, especially in the video marketplace. We have taken a number of steps to encourage new entrants, and consumers now have more options for video than ever before.

Our deregulatory decisions in the U.S. communications industry have resulted in significant investment--likely more than \$70 billion by the telecommunications industry in 2007 alone. We have seen unparalleled investment in new fiber deployment and new entrants offering video and broadband. Consumers are reaping the benefits with triple and even quadruple plays.

Competition can benefit consumers in terms of lower prices, a broader panoply of products, improved fidelity and quality, and even totally new tools to enhance the consumer experience. It also leads to investment, which advances both technology and innovation. With this in mind, the findings of the Annual Video Competition Report serve as a foundation for much of our policymaking. Therefore, the accuracy and transparency of the information is of paramount import.

Reasonable minds may differ in drawing conclusions from data. However, that data must be available for review and able to withstand scrutiny. Data should be complete and viable. That is why it is crucial that we set in motion a process for future competition reports as soon as possible, and that we ensure reliability and completeness prior to making an analysis of the underlying data, and then drawing a final conclusion.

This year's Report focuses heavily on the findings of one source, rather than the numerous sources our reports have included in the past. I believe we must consider a broader universe of information sources when we are considering so broad a change in policy. One option would be to supplement our analysis by requesting that Form 325 Survey information be provided by all cable operators. Just as our sister agency, the Securities and Exchange Commission, relies upon information it receives from cable companies, we should also be able to rely on the trustworthiness of the industry's own information. Finally, there should be no reason that this Commission cannot aptly analyze all relevant data, from all appropriate sources, as we do for other competition reports.

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\* This statement was provided while Commissioner Tate was in office.

I am now able to approve this item concluding that the 70/70 test has not been met for the 2006 Report. However, I do not agree that we should postpone its delivery to Congress or to the public. I believe the information contained in the current draft supports the Report's conclusion that this data does not demonstrate with certainty that the second prong of the 70/70 test has been met. Therefore, I would like to see us move expeditiously to send this already-delayed Report to Congress now.

I look forward to working with the Chairman and my colleagues to resolve the questions that have been raised regarding the underlying data in this Report in order to provide our 2007 Report in a more timely, thorough manner. We cannot debate philosophy and substance until we all have access to full and complete information upon which to base our respective positions. And I hope that we can work together to finalize our 2007 Report to Congress expeditiously.

**STATEMENT OF  
COMMISSIONER ROBERT M. MCDOWELL  
APPROVING IN PART, DISSENTING IN PART**

*Re: Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, MB Docket No. 06-189*

Today's Report has taken an interesting journey in the past few weeks. For starters, it is about nine months overdue to Congress. Then it appeared that the Commission was going to ignore a mountain of evidence from independent analysts and prior Commission findings to favor a solitary study. According to press accounts, sometime in October, this lonely study was solicited over the phone from Warren Communications by a FCC staffer. A day or two later, the draft Report was circulated and arrived at a conclusion that was a radical departure for the FCC: that the cable industry had surged past the 70/70 threshold outlined in Section 612(g) of the Act in just one short year.

To reach this previously unattainable figure, the Commission was prepared to omit, or as some have said *suppress*, the FCC's own data as gathered from cable operators on Form 325 in favor of a study that was inserted into the record just last month without the benefit of public notice, scrutiny or comment. The author of this suddenly-dispositive analysis says that it should not be used for the 70/70 test due to large gaps in its evidentiary foundation. But the Commission was prepared to do so anyway because this flawed anomaly was the only fig leaf that could be found in an attempt to trigger an avalanche of unnecessary regulation to cascade down upon an otherwise competitive industry.

Let's compare some recent FCC reports to put this statistical prestidigitation in context. In the past, the FCC has used a variety of data sources, including our own numbers, to estimate cable subscribership. In a transparent fashion that allowed for ample public comment, our Video Competition Report historically has found that subscribership hovers at around 60 percent, falling well short of the second prong of the 70/70 test. The Commission arrived at this conclusion by using and analyzing information from several different sources and seeking public comment on them. For instance, in our Twelfth Annual Report, covering 2005:

- Using data from the FCC's 2005 Cable Price Survey, our staff estimated that 56.3 percent of houses passed subscribed to cable.
- Using data from the FCC's Form 325, our staff estimated 54 percent.
- Relying upon Nielsen and Kagan data, we cited 63.3 and 53.1 percent, respectively.
- The Warren Communications 2005 numbers determined that 67.8 percent of homes passed subscribed to cable.

Moreover, in the Eleventh Annual Report, which examined 2004 data, we similarly cited Kagan, Nielsen, Warren and our own Cable Price Survey sample data and Form 325 sample data in finding that the second prong of the 70/70 test had not been met.

Similarly, numerous independent analyses and studies have corroborated the conclusion that cable subscribership is well below the 70 percent threshold. In fact, incumbent cable operators are losing video subscribers. I do note that the Media Access Project and AT&T filed opinions late in this process claiming penetration above 70 percent, and those filings should be given appropriate consideration. But,

even so, the great weight of the evidence strongly indicates otherwise for 2006 and all years prior.

Interestingly, this year, in a disturbing development, the FCC's most recent Form 325 data was not made available to commissioners for review until 7:09 p.m. last night. It was only made available once it was obvious that a majority of the Commission would not support the initial draft of this Report because it was such a dramatic departure based on mysterious statistical manipulation. But why was this data omitted or suppressed to begin with? Was it because it concluded cable penetration was only at 54 percent, just like last year? Similarly, only once it became public that this year's Report was generating controversy, third parties, such as AT&T and MAP, filed fresh *ex parte* opinions and analyses. I value their participation and I'd like to see the Commission encourage such debate during a brightly lit and transparent public comment period before we arrive at our conclusions. Hopefully, today's Report, coupled with our Notice of Inquiry, will allow us to move forward in our quest for the most accurate data we can find.

In the meantime, all indicators point to the conclusion that the video marketplace is more competitive now than ever through the rise of cable over-builders, traditional phone companies offering video, two vibrant DBS providers, free content on the Internet, and, once the digital TV transition is complete, a multitude of free HD and multicast video streams from broadcasters. This Report underscores that cable subscribership has declined over the past year, while the two satellite companies, DirecTV and EchoStar, gained 1.8 million customers and are now the second and third largest MVPDs. America's telecommunications companies are now competing vigorously for video customers, with Verizon alone serving nearly one million video subscribers.

Today, virtually every American enjoys multiple options for the delivery of video programming and more choices in content and services than ever before. I look forward to this trend continuing so that consumers can enjoy even more of the benefits of competition. In fact, one has to wonder whether Section 612(g) is relevant anymore. The provision was enacted in 1984 at a time when only one incumbent cable provider served a local franchise. The legislative history shows us that Congress was concerned that such companies could dominate the video market as the only game in town. But, as the result of responsible de-regulatory policies that have encouraged investment and new entry, the average consumer has a choice of at least three video providers with over-builders and phone companies increasing that menu of options for millions more consumers. When competition flourishes, the need for regulation diminishes. The Report we adopt today underscores this fundamental point.

Lastly, I am puzzled as to why the majority now want to seek both 2006 and 2007 data in the context of this Report covering only 2006. As always, I fully support seeking any relevant data, provided we give adequate opportunity for public comment. The more data, analysis and public comment, the better. However, we already have the 2006 data from our Form 325 – with the exception that smaller cable operators do not file that form. But it is precisely the smaller operators that do not keep data in the form the Commission is now requesting from them. Smaller operators especially do not have the data from eighteen months ago that the majority wants. So the Commission is requesting data that simply cannot be provided in many circumstances. Will this resulting "gap" in data later be used as a basis to concoct projections that the 70/70 threshold has been met? Stay tuned.

The second most puzzling request is requiring 2007 data to be submitted into a proceeding pertaining to the 2006 video market. Shouldn't 2007 data be included in our 2007 report proceeding? What relevance does 2007 data have to the 2006 video market? Now that all of the 2006 data has finally been brought to light, as of twenty-seven hours ago, we should close the book on 2006. After all, Congress is waiting. At the end of the day, the great weight of the 2006 evidence makes clear that cable

penetration falls far short of the 70/70 threshold. Because I find this last-minute maneuver to be illogical, and dubious, I dissent from this portion of today's Report.

I support all other portions of this Report. I thank the team in the Media Bureau for their hard work.