

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

In the Matter of )  
 )  
Annual Assessment of the Status of ) CS Docket No. 01-129  
Competition in the Market for the )  
Delivery of Video Programming )

**EIGHTH ANNUAL REPORT**

**Adopted: December 27, 2001**

**Released: January 14, 2002**

By the Commission: Commissioner Martin issuing a statement.

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## I. INTRODUCTION

1. This is the Commission's eighth annual report ("*2001 Report*") to Congress on the status of competition in the market for the delivery of video programming.<sup>1</sup> Section 628(g) of the Communications Act of 1934, as amended ("Communications Act"), requires the Commission to report annually to Congress on the status of competition in the market for the delivery of video programming.<sup>2</sup> Congress imposed this annual reporting requirement in the Cable Television Consumer Protection and Competition Act of 1992 ("1992 Cable Act")<sup>3</sup> as a means of obtaining information on the competitive status of markets for the delivery of video programming.<sup>4</sup>

### A. Scope of this Report

2. The *2001 Report* updates the information in our previous reports and provides data and information that summarize the status of competition in the market for the delivery of video programming. The information and analysis provided in this report are based on publicly available data, filings in various Commission proceedings, and information submitted by commenters in response to a *Notice of Inquiry* ("*Notice*") in this docket.<sup>5</sup> To the extent that information provided in previous annual reports is still relevant, we do not repeat that information in this report other than in an abbreviated fashion, and provide references to the discussions in prior reports.

3. In Section II, we examine the cable television industry, existing multichannel video programming distributors ("MVPDs") and other program distribution technologies and potential competitors to cable television. Among the MVPD systems or techniques discussed are direct broadcast satellite ("DBS") services and home satellite dishes ("HSDs"), wireless cable systems using frequencies in the multichannel multipoint distribution service ("MMDS"), private cable or satellite master antenna

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<sup>1</sup> The Commission's previous reports appear at: *Implementation of Section 19 of the 1992 Cable Act (Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming)*, CS Docket No. 94-48, First Report ("*1994 Report*"), 9 FCC Rcd 7442 (1994); *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 95-61, Second Annual Report ("*1995 Report*"), 11 FCC Rcd 2060 (1996); *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 96-133, Third Annual Report ("*1996 Report*"), 12 FCC Rcd 4358 (1997); *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, CS Docket No. 97-141, Fourth Annual Report ("*1997 Report*"), 13 FCC Rcd 1034 (1998); *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, CS Docket No. 98-102, Fifth Annual Report ("*1998 Report*"), 13 FCC Rcd 24284 (1998); *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, CS Docket No. 99-230, Sixth Annual Report ("*1999 Report*"), 15 FCC Rcd 978 (2000); and *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 00-132, Seventh Annual Report ("*2000 Report*"), 16 FCC Rcd 6005 (2001).

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

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

<sup>4</sup> One of the purposes of Title VI of the Communications Act is to "promote competition in cable communications and minimize unnecessary regulation that would impose an undue economic burden on cable systems." 47 U.S.C. § 521(6).

<sup>5</sup> *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 00-129, Notice of Inquiry ("*Notice*"), 16 FCC Rcd 13330 (2001). Appendix A provides a list of commenters and the abbreviations by which they are identified herein.

television (“SMATV”) systems as well as broadcast television service. We also consider other existing and potential distribution technologies for video programming, including the Internet, home video sales and rentals, local exchange carriers (“LECs”), and electric and gas utilities. In addition, for the first time this year, we address broadband service providers (“BSPs”), a new category of entrant into the video marketplace.

4. In Section III of this report, we examine market structure and competition. We evaluate horizontal concentration in the multichannel video marketplace and vertical integration between cable television systems and programming services. We also discuss competitors serving multiple dwelling unit (“MDU”) buildings. We further address programming issues and technical advances. In Section IV, we report on the competitive effects in communities where consumers have a choice between an incumbent cable operator and at least one other MVPD and provide several examples of the incumbent cable operator’s response to such competition.

## **B. Summary of Findings**

5. In the *2001 Report*, we examine the status of competition in the market for the delivery of video programming, discuss changes that have occurred in the competitive environment over the last year, and describe barriers to competition that continue to exist. Overall, the Commission finds that competitive alternatives continue to develop. Cable television still is the dominant technology for the delivery of video programming to consumers in the MVPD marketplace, although its market share continues to decline. As of June 2001, 78 percent of MVPD subscribers received their video programming from a franchised cable operator, compared to 80 percent a year earlier.

6. The total number of subscribers to both cable and non-cable MVPDs continues to increase. A total of 88.3 million households subscribe to multichannel video programming services as of June 2001, up 4.6 percent over the 84.4 million households subscribing to MVPDs in June 2000. This subscriber growth accompanied a 2.7 percentage point increase in MVPDs’ penetration of television households to 86.4 percent as of June 2001.<sup>6</sup>

7. Since the *2000 Report*, the number of cable subscribers continued to grow, reaching almost 69 million as of June 2001, up about 1.9 percent from the 67.7 million cable subscribers in June 2000. The total number of non-cable MVPD subscribers grew from 16.7 million as of June 2000 to 19.3 million as of June 2001, an increase of more than 15 percent.

8. The growth of non-cable MVPD subscribers continues to be primarily due to the growth of DBS. DBS appears to attract former cable subscribers and consumers not previously subscribing to an MVPD. The continued growth of DBS is, in part, attributable to the authority granted to DBS operators to distribute local broadcast television stations in their local markets by the Satellite Home Viewer Improvement Act of 1999 (“SHVIA”). Between June 2000 and June 2001, the number of DBS subscribers grew from almost 13 million households to about 16 million households, which is nearly two and a half times the cable subscriber growth rate. DBS subscribers now represent 18.2 percent of all MVPD subscribers. Over the last year, the number of subscribers to, and market shares of, MMDS,

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<sup>6</sup> The number of MVPD households reported here, and the associated percentages, may be as much as two million households too high because a household that subscribes to more than one MVPD (e.g., cable and DBS) is included as a subscriber to both services. See Centris, *Digital Cable Subscriber Order 4x as Many PPV Movies and 2x as Many PPV Events as Analog Households; 50% More Events than DBS Households* (press release), Mar. 20, 2001, at <http://www.centris.com/announcements/re1032001.htm>.

SMATV, and OVS have remained relatively stable. However, the number of HSD subscribers continues to decline.

9. During the period under review, cable rates rose faster than inflation. According to the Bureau of Labor Statistics, between June 2000 and June 2001, cable prices rose 4.24 percent compared to a 3.25 percent increase in the Consumer Price Index (“CPI”), which measures general price changes. Concurrently with these rate increases, capital expenditures for the upgrading of cable facilities increased, the number of video and non-video services offered increased, and programming costs increased. We also note that cable operators’ pricing decisions may be affected by direct competition. Available evidence indicates that when an incumbent cable operator faces “effective competition,” as defined by the Communications Act, it responds in a variety of ways, including lowering prices or adding channels without changing the monthly rate, as well as improving customer service and adding new services such as interactive programming.

10. The Telecommunications Act of 1996 (“1996 Act”)<sup>7</sup> removed barriers to LEC entry into the video marketplace to facilitate competition between incumbent cable operators and telephone companies. At the time of the 1996 Act, it was expected that LECs would compete in the video delivery market and that cable operators would provide local telephone exchange service. We previously reported that there had been an increase in the amount of video programming provided to consumers by telephone companies, although the expected technological convergence that would permit use of telephone facilities for video service had not yet occurred.<sup>8</sup> This year, we find that incumbent local exchange carriers (“ILECs”) have largely exited the video business, instead mainly reselling DBS service. A few smaller LECs offer, or are preparing to offer, MVPD service over existing telephone lines. Some competitive local exchange carriers (“CLECs”) continue to pursue MVPD entry and competition. Alternatively, several cable MSOs offer telephone service. Circuit-switched telephony is still the only type of commercially deployed cable telephony, but trials continue for cable-delivered IP telephony. MSOs, such as Cox and AT&T, continue to deploy circuit-switched cable telephony. Others, like Cablevision and Comcast, continue to offer cable telephony where it has already been deployed, but generally are waiting for Internet Protocol (“IP”) technology to become widely available before accelerating their rollout of telephone service. AT&T, AOL Time Warner, Comcast, and Charter currently are testing IP telephony, while Cox has plans for IP telephony trials in 2002.

11. The most significant convergence of service offerings continues to be the pairing of Internet service with other service offerings. There is evidence that a wide variety of companies throughout the communications sector are providing multiple services, including data access. Cable operators continue to expand the broadband infrastructure that permits them to offer high-speed Internet access. The most popular way to access the Internet over cable is still through the use of a cable modem and personal computer, though a small number of users continue to access the Internet through their television and a specially designed set-top box, rather than the personal computer. Virtually all of the major MSOs offer Internet access via cable modems in portions of their service areas. Like cable, the DBS industry is developing ways to bring advanced services to their customers. For example, DirecTV currently offers a satellite-delivered high-speed Internet access service with a telephone return path called DirecPC. EchoStar now offers its subscribers a similar service, called Starband, in cooperation with a subsidiary of Gilat. Many SMATV operators offer local and long distance telephone service, and Internet access along with video service. In addition, digital technology makes it possible for MMDS operators, who provide

<sup>7</sup> Pub. L. No. 104-104, 110 Stat. 56 (1996).

<sup>8</sup> *2000 Report*, 16 FCC Rcd at 6009.

video service in limited areas, to offer two-way services, such as high-speed Internet service and telephony. Broadband service providers are building advanced systems specifically to offer a bundle of services, including video, voice, and high-speed Internet access.

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

13. Our findings as to particular distribution mechanisms operating in markets for the delivery of video programming including the following:

- Cable Systems: Since the *2000 Report*, the cable television industry has continued to grow in terms of subscribership (a 1.9 percent increase from June 2000), revenues (an approximate 3.7 percent increase between 1999 and 2000), audience ratings (non-premium cable viewership rose from an approximate 46 share in June 2000 to slightly over a 48 share in 2001), and expenditures on programming. The number of national satellite-delivered video programming services, which declined slightly last year, increased from 281 to 294, between June 2000 and June 2001.
- The cable industry has continued to invest in improved facilities. As a result, there have been increases in channel capacity, the deployment of digital transmissions, and non-video services such as Internet access. Cable operators also offer telephony, although the use of integrated facilities remains primarily experimental.
- Direct-to-Home (“DTH”) Satellite Service (DBS and HSD): Video service is available from high power DBS satellites that transmit signals to small DBS dish antennas installed at subscribers’ premises, and from low power satellites requiring larger antennas. DBS has over 16 million subscribers, an increase of approximately 24 percent since the *2000 Report*. Between June 2000 and June 2001, the number of HSD subscribers, measured as the number of HSD users that actually purchase programming packages, declined from 1.5 million to one million, a decrease of 32 percent. DirecTV and EchoStar are each among the ten largest providers of multichannel video programming service. In June 2001, DBS represented a 18.2 percent share of the national MVPD market and HSD represented another 1.1 percent of that market.
- Wireless Cable Systems: Currently, the wireless cable industry (“MMDS”) provides competition to the cable industry in limited areas. MMDS subscribership remained at approximately 700,000 subscribers between June 2000 and June 2001. With the advent of digital MMDS and the Commission’s authorization of two-way MMDS service, it appears that most MMDS spectrum eventually will be used to provide high-speed data services. Wireless cable represented a 0.8 percent share of the national MVPD market in June 2001.

- **SMATV Systems:** SMATV systems, also known as private cable operators, use some of the same technology as cable systems, but do not use public rights-of-way, and focus principally on serving subscribers living in MDUs. As of June 2001, SMATV subscribership remained unchanged from last year at 1.5 million subscribers, representing approximately 1.7 percent of national MVPD subscribership.
- **Broadcast Television:** Broadcast networks and stations are competitors to MVPDs in the advertising and program acquisition markets. Broadcast networks and stations also are suppliers of content for distribution by MVPDs. In addition, they supply video programming directly to those television households that are not MVPD subscribers and to television sets in MVPD households that are not connected to such service. In this regard, one study estimates that 81 million, or approximately 30 percent of the nation's 267 million television sets, receive broadcast signals over-the-air. Since the *2000 Report*, the broadcast industry has continued to grow in the number of operating stations (from 1,663 in 2000 to 1,678 in 2001) and in advertising revenues (\$41 billion in 2000, a 12.2 percent increase over 1999). Audience levels, however, continue to decline. During the 2000-2001 television season, the seven television networks accounted for a 57 percent share of prime time viewing for all television households, compared to a 59 share a year earlier. Broadcast television stations continue to deploy digital television ("DTV") service. Eighty-three percent of the more than 1,300 commercial television stations have been granted a DTV construction permit or license and 229 are on the air with DTV operation.
- **LEC Entry:** The 1996 Act expanded opportunities for LECs to enter the market for the delivery of video programming. In the *2000 Report*, we noted that even the most aggressive LECs were reducing or terminating their efforts in the video marketplace. This year, we find that ILECs have largely exited the video business, instead mainly reselling DBS service. The exceptions to this trend are BellSouth, which, in addition to reselling DBS service, continues to operate some overbuild cable systems, and a number of smaller LECs that are offering, or preparing to offer, MVPD service over telephone lines. Some CLECs, most notably RCN, continue to pursue MVPD entry. Previously, Ameritech, now owned by SBC, was the most significant LEC provider of in-region cable service. In the past year, SBC sold these systems to WideOpenWest, which we consider a BSP and discuss below. Qwest Communications International (formerly US West) continues to offer video, high-speed Internet access, and telephone service over existing copper telephone lines using very high-speed digital subscriber line ("VDSL") in Omaha and Phoenix. Reports indicate that 40 to 50 LECs, mostly small, also are using VDSL to offer a bundle of services, including video, over telephone lines.
- **Open Video Systems:** In the 1996 Act, Congress established a new framework for the delivery of video programming -- the open video system ("OVS"). Under these rules, a LEC or other entrant may provide video programming to subscribers, although the OVS operator must provide non-discriminatory access to unaffiliated programmers on a portion of its channel capacity. Several BSPs, including some that are CLECs, operate open video systems, hold OVS

certifications, or hold local OVS franchises. RCN is by far the largest OVS operator in the country.

- **Broadband Service Providers:** In this year's *Report*, we add a new section to recognize the growing importance of providers that are overbuilding existing cable systems with state-of-the-art systems that offer a bundle of telecommunications services, including video, voice, and high-speed Internet access. BSPs are carefully selecting which communities to serve, based on factors such as favorable demographics and high population density. Their strategy is to increase per subscriber revenue and decrease churn. Yet, BSPs face considerable challenges inherent in entering markets with entrenched competitors. RCN is the largest BSP, serving approximately 443,000 subscribers in New York City, Washington, D.C., and surrounding suburbs, South San Francisco, Boston and its suburbs, Northern New Jersey, and suburbs of Philadelphia. WideOpenWest ("WOW") recently became the second largest BSP with its acquisition of the former Ameritech cable systems, which serve about 300,000 subscribers. In addition, WOW is constructing systems in selected metropolitan Denver communities. The third largest BSP is Knology, which operates or is building systems in the Southeast, and currently serves 110,000 subscribers.
- **Internet Video:** As of July 2001, 58 percent of the U.S. population has Internet access at home. Real-time and downloadable video accessible over the Internet continues to become more widely available and the amount of content also is increasing. Despite the evidence of increased interest in Internet video deployment and use, the medium is still not seen as a direct competitor to traditional video service. Broadcast quality Internet video requires a high-speed broadband connection at speeds which most current broadband providers cannot guarantee.
- **Home Video Sales and Rentals:** We consider the sale and rental of home video, including videocassettes, DVDs, and laser discs, part of the video marketplace because they provide services similar to the premium and pay-per-view offering of MVPDs. About 90 percent of all U.S. households have at least one VCR. The number of homes with DVD players has grown rapidly since their introduction, with the number of homes with DVD players expected to reach 25 million by the end of 2001. The newest home video is the personal video recorder ("PVR"). One source reports that 500,000 PVRs have been sold since they were introduced two years ago.
- **Electric and Gas Utilities:** Several electric and gas utilities continue to move forward with ventures involving multichannel video programming distribution. Some of their characteristics, such as ownership of fiber optic networks and access to public rights-of-way, make them competitively significant. Some utilities offer telecommunications services on their own, while others partner with broadband service providers, such as Starpower, RCN's joint venture with PEPCO. It also appears that utilities, particularly municipal utilities in rural areas, are willing to build advanced telecommunications networks to offer a full range of services where incumbent cable operators and telephone companies are



not. Reports indicate that 357 public power systems offer communications services.

14. We also find that:

- Consolidations within the cable industry continue as cable operators acquire and trade systems. The ten largest operators now serve close to 87 percent of all U.S. cable subscribers. In terms of one traditional economic measure, national concentration among the top MVPDs has decreased since last year as the largest MSOs have become more equal in size, and it remains below the levels reported in earlier years.<sup>9</sup> DBS operators DirecTV and EchoStar rank among the ten largest MVPDs in terms of nationwide subscribership along with eight cable multiple system operators (“MSOs”). As a result of acquisitions and trades, cable MSOs have continued to increase the extent to which their systems form regional clusters whereby the largest MSOs concentrate their operations in specific geographic areas. Currently, close to 55 million of the nation’s cable subscribers are served by systems that are included in regional clusters. By clustering their systems, cable operators may be able to achieve efficiencies that facilitate the provision of cable and other services, such as telephony.
- The number of satellite-delivered programming networks has increased by 13, from 281 in 2000 to 294 in 2001. Vertical integration of national programming services between cable operators and programmers remained at 35 percent after several years of decline. Although AT&T spun off its Liberty Media programming interests, Liberty Media is still included in this percentage since it owns several cable systems in Puerto Rico. In 2001, four of the top seven cable MSOs held ownership interests in satellite-delivered programming services. Sports programming warrants special attention because of its widespread appeal and strategic significance for MVPDs. The *2001 Report* identifies 80 regional networks, 29 of which are sports channels, many owned at least in part by MSOs. There are also 29 regional and local news networks that compete with local broadcast stations and national cable networks.
- The program access rules adopted pursuant to the 1992 Cable Act were designed to ensure that other MVPDs can access vertically-integrated satellite delivered programming on non-discriminatory terms. We recognize that the terrestrial distribution of programming, including in particular regional sports programming, could have an impact on the ability of alternative MVPDs to compete in the video marketplace.
- Cable operators and other MVPDs continue to develop and deploy advanced technologies, especially digital compression techniques, to increase capacity and enhance the capabilities of their transmission platforms. These technologies

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

allow MVPDs to deliver additional video options and other services (e.g., data access, telephony, and interactive services) to subscribers. As reported last year, MVPDs are beginning to develop and deploy interactive television ("ITV") services. In particular, this year, cable operators and other MVPDs have devoted most of their attention to the development of video-on-demand services.

- In the last year, there have been a number of developments regarding navigation devices and cable modems used to access a wide range of services offered by MVPDs. Most notably, cable operators are favoring less powerful and less expensive set-top boxes. It is unclear how these modified plans will affect advance service offerings. CableLabs is continuing its efforts to develop next generation navigation devices with its initiative for the OpenCable Application Platform ("OCAP") or "middleware" specification. The Consumer Electronics Association maintains that until this software standard is complete, manufacturers will not be able to build advanced set-top boxes for a retail market. In another effort intended to facilitate retail availability of set-top boxes, cable operators announced an initiative to encourage their set-top box suppliers to make their digital set-top boxes with embedded security available at retail.

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

### A. Cable Industry

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

#### 1. General Performance

16. Since our last *Report*, the cable industry has continued to grow in terms of homes passed,<sup>11</sup> basic cable subscribership,<sup>12</sup> premium service subscriptions,<sup>13</sup> basic cable viewership, and channel

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

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

<sup>12</sup> We refer to all cable programming networks offered as a part of program packages or tiers as "basic cable networks." The primary level of cable television service is commonly referred to as "basic service" and must be taken by all subscribers. The content of basic service varies widely among cable systems but, pursuant to the Communications Act, must include all local television signals and public, educational, and governmental access channels and, at the discretion of the cable operator, may include satellite delivered cable programming channels

(continued...)

capacity.<sup>14</sup> Basic cable penetration, the ratio of the number of cable subscribers to the total number of households passed by the system, has declined slightly since our last report. Deployment of advanced broadband service offerings, however, continued during 2000 and the first half of 2001. These services include offerings of digital video, Internet access through cable, interactive cable,<sup>15</sup> and facilities-based broadband telephony.

17. **Cable's Capacity to Serve Television Households.** The number of U.S. homes with at least one television ("TV households") was reported as 100.8 million during the 1999-2000 television season.<sup>16</sup> During the 2000-2001 television season the number of TV households was reported as 102.2 million, an increase of 1.4 percent.<sup>17</sup> The number of homes passed by cable was approximately 96.6 million at the end of 1999, 103.2 million at the end of 2000, and by the end of June 2001 was estimated to be 104 million.<sup>18</sup> The most widely used industry measurement of cable availability, however, is the number of homes passed expressed as a percentage of TV households. Based on data from Paul Kagan Associates, homes passed as a percentage of TV households was estimated to be 97.1 percent as of June 2001.<sup>19</sup> In its comments, NRTC once again proposes that this figure is flawed.<sup>20</sup> This statistic, it notes, varies depending on the estimate of homes passed and whether the comparison is based on TV households, all households, all occupied housing units, or all housing units in the United States, as some have

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carried on the system. One or more expanded tiers of service, known as cable programming service ("CPS") tiers for purposes of rate regulation, and often known as expanded basic, also may be offered to subscribers. These expanded tiers of service usually include additional satellite delivered cable programming channels. 47 U.S.C. §§ 543(b)(7), 543(l)(2).

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

<sup>14</sup> Channel capacity is defined as the maximum number of 6 MHz video channels that a system can carry simultaneously. Video channel capacity can be decreased on any given system simply by using bandwidth for other services such as connectivity to the Internet.

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

<sup>16</sup> Nielsen Media Research, *U.S. Television Household Estimates September 2000*, DMA Rankings. Nielsen Media Research estimates the number of television households annually, and industry practice is to use this figure throughout the television broadcast season, which begins in September and ends in August of the following calendar year. Thus, the figure for TV households in June 2001 is the same as the figure for December 2000. In App. B, Tbl. B-1, we report the number of television households as of year-end 2000 and June 2001. These figures are from Paul Kagan Associates, and we use these estimates of television households for consistency with the remainder of reported figures in this section.

<sup>17</sup> Nielsen Media Research, *U.S. Television Household Estimates September 2001*, DMA Rankings. See also App. C, Tbl. C-1.

<sup>18</sup> See App. B, Tbl. B-1.

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

<sup>20</sup> See 2000 Report, 16 FCC Rcd at 6016-7.

suggested.<sup>21</sup> NRTC suggests again this year that the number of homes passed as a percentage of TV households could be as low as 81 percent.<sup>22</sup>

18. **Subscribership.** Cable television subscribership grew from 67.3 million subscribers at the end of 1999 to 68.5 million subscribers at the end of 2000, an increase of 1.8 percent.<sup>23</sup> It continued to grow to an estimated 69 million subscribers by June 2001, a six month increase of approximately 0.7 percent.<sup>24</sup> Cable penetration declined between 1999 and 2000, decreasing from 69.7 percent at the end of 1999 to 66.4 percent at the end of 2000, and 66.3 percent by June 2001.<sup>25</sup> The percentage of TV households subscribing to cable also decreased over the last year, declining from 67.3 percent in 1999 to 64.4 percent of all TV households by the end of 2000 and June 2001.<sup>26</sup> The number of homes subscribing to one or more premium cable services increased from 35.5 million homes at the end of 1999 to 36.8 million homes at the end of 2000, an increase of 3.7 percent.<sup>27</sup> For the first half of 2001, premium cable subscribers increased again, reaching 37.2 estimated subscribers, a six-month increase of about one percent.<sup>28</sup> The number of premium services to which homes are subscribing (known as "premium units") increased 4.9 percent by the end of 2000 to 55.6 units and by June 2001, to 56.4 units.<sup>29</sup>

19. **Channel Capacity.** As part of its consideration of issues relating to the carriage of DTV stations by cable operators, the Commission conducted a survey of, among other things, cable system channel capacity.<sup>30</sup> Preliminary results from the survey revealed that 48.8 million subscribers, or approximately 87 percent of all subscribers served by cable MSOs included in the survey are served by systems that provided bandwidth of 550 MHz or higher, and more than 76 percent are served by systems that provided bandwidth of 750 MHz or higher.<sup>31</sup> Cable operators have allocated this bandwidth in a

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<sup>21</sup> *Id.* See also National Telecommunications and Information Administration, United States Department of Commerce and Rural Utilities Service, United States Department of Agriculture, *Advanced Telecommunications in Rural America, The Challenge of Bringing Broadband Service to All Americans* ("NTIA/RUS Report"), April 2000.

<sup>22</sup> NRTC Comments at 6-11; see also *2000 Report*, 16 FCC Rcd at 6016-7.

<sup>23</sup> See App. B, Tbl. B-1.

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

<sup>25</sup> *Id.*

<sup>26</sup> *Id.* The percentage of TV households subscribing to cable is the ratio of the number of cable subscribers to the total number of households with at least one television.

<sup>27</sup> See App. B, Tbl. B-2.

<sup>28</sup> *Id.*

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

<sup>30</sup> See *Carriage of Digital Television Broadcast Signals, Amendment 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 Non-Duplication, Syndicated Exclusivity and Sports Blackout Rules to Satellite Retransmission of Broadcast Signals*, CS Docket Nos. 98-120, 00-96, 00-2, First Report and Order and Further Notice of Proposed Rulemaking ("*DTV Signal Carriage Proceeding*"), 16 FCC Rcd 2598 (2001).

<sup>31</sup> MSOs surveyed included the top twelve cable operators, and four other relatively large operators, comprising approximately 90 percent of all cable subscribers (AT&T Broadband, Time Warner, Comcast, Charter, Cox, Adelphia, Cablevision, Insight, Mediacom, CableOne, RCN, Armstrong Cable, Classic Communications, Service Electric Cable TV, BellSouth, and Northland). Results are based on responses provided by twelve MSOs. Not all MSOs were included in the results due to lack of response or quality of data submitted.

variety of ways, using a portion of this bandwidth for the provision of analog video, and a portion for the provision of digital video, with the remainder allocated for services such as Internet access and telephony. For example, systems with 750 MHz system capacity on average allocated 478 MHz or approximately 80 channels to analog video. Also, on average, 750 MHz systems allocated 140 MHz for downstream digital video, which may yield a range of channels, depending on the modulation technique and compression ratio employed.

20. **Viewership.** As reported last year, viewership shares of non-premium cable networks have continued to grow over the past decade, while viewership shares of broadcast television stations have steadily declined. This trend continues. Audience share statistics for Monday through Sunday, 24 hours a day, show that non-premium cable audience shares rose 5.7 percent from an average 45.5 share<sup>32</sup> between July 1999 through June 2000, to an average 48.1 share between July 2000 and June 2001.<sup>33</sup> Broadcast television audience shares decreased 4.7 percent from an average 59.6 share from July 1999 through June 2000, to an average 56.8 share between July 2000 and June 2001.<sup>34</sup>

21. **Cable Networks.** Although the number of cable networks, on average, increased in 2000, several categories of networks decreased. For example, in 2000, the number of non-premium cable networks decreased from 147 to 130, an 11.6 percent decline.<sup>35</sup> The number of premium networks also decreased during 2000, from 43 at year-end 1999 to 40 at year-end 2000.<sup>36</sup> These decreases were coordinated to make room for the addition of digital tier channels for which there were, on average, none recorded in 1999, but 39 reported for 2000.<sup>37</sup> The number of pay-per-view (“PPV”) services increased 4.8 percent in 2000 from 9 to 11 networks.<sup>38</sup>

22. **Programming Costs.** Cable operators incurred expenses of approximately \$8.9 billion for producing and acquiring programming in 2000.<sup>39</sup> Approximately \$6.4 billion of these expenses were license fees paid by the basic cable networks to obtain programming, and approximately \$2.2 billion were license fees paid by premium cable services.<sup>40</sup> Approximately \$148 million of these expenses were for the production of original programming.<sup>41</sup> Programming expenses incurred by cable operators for

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<sup>32</sup> A share is the percent of all households using television during the time period that are viewing the specified station(s) or network(s). The sum of reported audience shares exceeds 100 percent due to multiple set viewing.

<sup>33</sup> Nielsen Media Research, *Total Day 24 Hours 6 am - 6 am: Total US Ratings By Viewing Source July 2000-June 2001*, Oct. 2001. Nielsen reports non-premium, basic cable viewership as “Ad Supported Cable” and “All Other Cable.” Premium services are classified as “Premium Pay.”

<sup>34</sup> *Id.* “Broadcast” shares include network affiliates, independent, and public television stations.

<sup>35</sup> These statistics regarding types of cable networks are from NCTA, *National Cable Video Networks By Type of Service: 1980-1999*, Cable Television Developments 2001, at 8. These totals differ from those reported in the Vertical Integration Section of this report. In that section, the information on cable networks is from NCTA Developments and additional sources. See App. B, Tbl. B-3.

<sup>36</sup> See App. B, Tbl. B-3.

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> NCTA Comments at 20.

<sup>40</sup> Telephone interview with Gregory Klein, Senior Director of Economic and Policy Analysis, NCTA (Oct. 31, 2001).

<sup>41</sup> *Id.*

copyright fees for broadcast signal carriage pursuant to Section 111 of the Copyright Act amounted to approximately \$112 million in 2000.<sup>42</sup> As of November 7, 2001,<sup>43</sup> copyright fees paid by cable system operators or broadcast signal carriage for the period January 1, 2000, to June 30, 2000, were \$53.2 million.<sup>44</sup> For the period July 1, 2000, through December 31, 2000, fees collected were \$59.6 million. Reported estimates indicate that these programming network expenses will total \$9 billion by year-end 2001.<sup>45</sup> Thus far, for the period January 1, 2001, to June 30, 2001, copyright fees collected were \$53.9 million.<sup>46</sup>

## 2. Financial Performance

23. Data concerning cable industry revenue, cash flow, and stock prices indicate that the cable industry growth slowed significantly in the past year. Relative to major market indices, cable stocks, as represented by the Kagan MSO Index, performed below average in 2000 and in the first half of 2001.<sup>47</sup>

24. **Cable Industry Revenue.** Annual cable industry revenue grew 3.7 percent in 2000 over 1999, reaching \$38.1 billion.<sup>48</sup> By the end of 2000, revenue per subscriber grew almost two percent to \$561.38 per subscriber per year, or \$46.78 per subscriber per month.<sup>49</sup> Analysts estimate that 2001 year-end total revenue will reach nearly \$44 billion, an estimated 15.4 percent increase over 2000,<sup>50</sup> and that revenue per subscriber per year will reach approximately \$637.33, or \$53.11 per subscriber per month.<sup>51</sup>

25. When cable system revenue is classified by source, home shopping revenue demonstrated the greatest percent increase in 2000.<sup>52</sup> Commissions from home shopping increased nearly 30 percent in 2000, from \$185 million in revenue in 1999 to \$239 million in 2000.<sup>53</sup> Advanced video services

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<sup>42</sup> Copyright Act, 17 U.S.C. § 111 *et seq.*

<sup>43</sup> Copyright fees, though technically due on a specific date, are collected on a rolling basis. We report the most current figures available.

<sup>44</sup> Copyright Office, Library of Congress, *Licensing Division Report of Receipts*, Nov. 7, 2001. Date of "collection" indicates the date the Copyright Office has deposited payments made by cable operators.

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

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

<sup>47</sup> Cable industry stocks underperformed the NASDAQ in 2000, but performed slightly better in the first quarter of 2001. See Paul Kagan Assocs., Inc., *Kagan Cable MSO Average vs. NASDAQ*, The Broadband Cable Financial Databook 2001 ("2001 Cable Databook"), July 2001, at 83; Jessica Reif Cohen and Nathalie Brochu, *Q2/Q3 Preview* ("Merrill Lynch – Q2/Q3 Preview"), Merrill Lynch, July 30, 2001, at 9.

<sup>48</sup> See App. B, Tbl. B-4.

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* The "advanced video services" category includes both analog video services and digital video services. Advanced analog services provide users with certain two-way capabilities such as PPV and VOD. Digital video services can provide superior video picture quality and increased channel capacity. Both digital and advanced analog services require the use of a set-top box.

<sup>53</sup> See App. B, Tbl. B-4.

increased 3.7 percent in 2000 after having experienced 338 percent growth in 1999.<sup>54</sup> Analysts expect advanced video services to grow nearly 175 percent in 2001 to reach just over \$5.5 billion in revenues for the year.<sup>55</sup> The PPV sector, typically volatile, demonstrated a 20 percent decline in revenues in 2000, but analysts expect PPV revenue to increase in 2001, growing an estimated 44 percent, to over \$1 billion in annual revenue.<sup>56</sup> Equipment and installation revenue declined over 13 percent in 2000, from \$2.8 billion in annual revenue in 1999 to a little more than \$2.4 billion in 2000.<sup>57</sup> Industry analysts predict this revenue sector will increase slightly in 2001 to an estimated \$2.5 billion.<sup>58</sup> Annual revenue from local advertising increased from \$2.7 billion in 1999 to \$3.2 billion in 2000, a 20.7 percent increase, and analysts expect local advertising revenue to increase 13 percent over the next year to reach \$3.7 billion in revenues by year-end 2001.<sup>59</sup> Revenue from the basic service tier (“BST”) and from the cable programming service tier (“CPST”) combined grew from \$23.1 billion in 1999 to \$24.7 billion in 2000, a 6.9 percent increase, and analysts expect these revenues to increase to \$26.1 billion by year-end 2001.<sup>60</sup>

**26. Cable Industry Cash Flow.** Cash flow is often used to assess the financial position of cable firms. Cash flow is generally expressed as “EBITDA” (earnings before interest, taxes, depreciation, and amortization). Financial analysts reported that industry-wide cash flow increased 6.5 percent between the end of 1999 and the end of 2000, from \$15.6 billion to \$16.6 billion.<sup>61</sup> Cash flow will increase an estimated 10 percent, reaching \$18.3 billion by year-end 2001.<sup>62</sup> In 2000, the cable industry generated \$244.64 in annual cash flow per subscriber, \$10.76 higher per subscriber than the \$233.88 per subscriber generated in 1999.<sup>63</sup> Analysts estimate that in 2001, cash flow per subscriber per year will increase by \$20.17, reaching \$264.81.<sup>64</sup> The ratio of cash flow to revenue (“cash flow margin”) increased from 42.4 percent in 1999 to 43.6 percent in 2000, and is expected to decrease to 41.5 percent by year-end 2001.<sup>65</sup>

**27. Stock Prices.** After reaching its all-time high in January 2000, cable stock values, as represented by the Kagan MSO Stock Index, declined throughout 2000 and the first half of 2001.<sup>66</sup> Unlike past years, when there were many precipitating events causing the sell-off of cable stocks, cable’s

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<sup>54</sup> *Id.*

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

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

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

<sup>60</sup> *Id.* Basic cable rates are regulated at the local level. CPST rate regulation ended in March 1999. See 47 U.S.C. § 543 (c)(3), (c)(4).

<sup>61</sup> See App. B, Tbl. B-4.

<sup>62</sup> *Id.*

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

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

<sup>65</sup> *Id.* Cash flow margin is a commonly-used financial analysis tool for determining a cable operator’s operating efficiency, profitability, and liquidity.

<sup>66</sup> See *The Public Market*, 2001 Cable Databook, at 82; *Kagan Cable MSO Average vs. NASDAQ*, 2001 Cable Databook, at 83.

current downturn seems to be more in step with the overall trends of the economy.<sup>67</sup> But despite currently depressed stock prices, analysts are optimistic about cable's future as the cable companies have proven that they can successfully roll out new services with the synergistic effects of bundling.<sup>68</sup> Even in the face of competition from DBS, analysts are encouraged by continued advanced service revenue growth.<sup>69</sup>

28. **Cable System Transactions.** Over the last several years, the number of acquisitions and exchanges between MSOs has declined, though there have been a number of mergers among large operators. The number of systems sold decreased between 1998 and 1999 from 119 to 92 systems.<sup>70</sup> Between 1999 and 2000, the number of systems sold decreased from 92 to 47 systems, and between January and June 2001, there were 23 transactions.<sup>71</sup> The total number of subscribers affected by system transactions and the average size of systems sold (measured by the number of subscribers per system) continues to vary greatly from year to year. Smaller cable operators, however, are often unable to take advantage of the efficiencies that come from clustering, and thus are more susceptible to financial difficulties. In the past year, small operators Galaxy Telecom, Inc., and Classic Communications faced such difficulties often seen among small MSOs.<sup>72</sup> The assets of these operators were sold to larger MSOs, further consolidating the industry.

29. While the number of subscribers affected by system transactions decreased between 1999 and 2000, from 18.3 million to 10.5 million, the average size of traded systems increased from approximately 199,000 subscribers per system sold in 1999 to approximately 223,000 subscribers per system sold in 2000.<sup>73</sup> Between January and June 2001, the number of subscribers affected by system transactions reached approximately four million, with an average number of subscribers per system transaction at approximately 176,000.<sup>74</sup> The total dollar value of transactions decreased between 1999 and 2000 from \$73 billion at year-end 1999 to \$62.1 billion at the end of 2000.<sup>75</sup> The total dollar value of transactions between January 2001 and June 2001 was approximately \$15 billion.<sup>76</sup>

### 3. Capital Acquisition and Disposition

30. **Industry Financing.** The cable industry typically has relied on combinations of private and public financing, with the distribution of these combinations varying greatly from year to year. These

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<sup>67</sup> *Id.*

<sup>68</sup> *Id.* at 82; *Kagan Cable MSO Average vs. NASDAQ*, 2001 Cable Databook, at 83; *Analysts Bullish on Cable Stocks Despite Slumping Prices*, Comm. Daily, Dec. 7, 2000, at 4. Bundling in this context merely means the co-marketing and co-billing of these products.

<sup>69</sup> *Analysts Bullish on Cable Stocks Despite Slumping Prices*, Comm. Daily, Dec. 7, 2000, at 4.

<sup>70</sup> This includes all systems bought and sold. See App. B, Tbl. B-5.

<sup>71</sup> *Id.*

<sup>72</sup> Mike Farrell, *Bondholders OK Galaxy Plan*, Multichannel News, Oct. 1, 2001; Classic Communications, Inc., *Classic Communications to Restructure Operations Under Chapter 11; Company to Continue to Conduct Business as Usual* (press release), Nov. 13, 2001, at <http://www.classic-cable.com/pages/Framesets/InvestorFrameset.html>.

<sup>73</sup> See App. B, Tbl. B-5.

<sup>74</sup> *Id.*

<sup>75</sup> *Id.*

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



year-to-year fluctuations in financing sources appear to be based on the availability of acceptable financing rates through private investors or capital lending institutions, and the attractiveness of debt and equity offerings.

31. During 2000, the cable industry acquired approximately \$380 million in public equity offerings (i.e., sale of stock), \$101 million in private equity (i.e., financing from individuals, private corporations, venture capital firms and investment banks), \$2.8 billion in private debt (i.e., banks and other borrowings), and \$4.2 billion in public debt (i.e., sale of public bonds).<sup>77</sup> Between January and June 2001, the cable industry acquired approximately \$2.5 billion in public equity offerings, \$94 million in private equity, \$8.6 billion in private debt, and \$8.1 billion in public debt.<sup>78</sup>

32. **Capital Expenditures/Capital Investment.** In 2000, the cable industry spent a total of \$15.5 billion on the construction of new plant, upgrades, rebuilds, new equipment, and maintenance of new and existing equipment.<sup>79</sup> This represents a 45.9 percent increase over the \$10.6 billion spent in 1999.<sup>80</sup> Analysts expect that operators will spend an estimated \$14.7 billion in 2001, a decrease of 5.2 percent over 2000.<sup>81</sup> Of the \$14.7 billion to be spent industry-wide, approximately \$850 million will be spent on new builds, \$2.4 billion on rebuilds, \$4.4 billion on upgrades, \$4.4 billion on equipment and \$2.6 billion on maintenance.<sup>82</sup>

33. MSOs continue to spend substantially on maintenance, upgrades, rebuilds, and new services. In the case of Time Warner, AT&T, Comcast, and Cox, some or all of the expenditures in 2000 and the first half of 2001 were associated with commitments made by those MSOs pursuant to social contracts with the Commission.<sup>83</sup> As of June 2001, AOL Time Warner had spent \$1.1 billion and is expected to

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<sup>77</sup> See App. B, Tbl. B-6.

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

<sup>79</sup> *Estimated Capital Flows in Cable TV*, 2001 Cable Databook, at 138. "New builds" are the construction of new cable plant where none existed before, primarily newly built homes. "Rebuilds" are improvements to existing systems that do not retain much of the old system plant and equipment. Instead, they consist of mostly new plant and equipment. "Upgrades" are improvements to existing cable systems that do not require the replacement of the entire existing plant and equipment.

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

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

<sup>82</sup> Paul Kagan Assocs., Inc., *Estimated Capital Flows in CableTV: Total Raised and Spent 1996-2001*, Cable TV Finance, June 28, 2001, at 2.

<sup>83</sup> The social contract with Time Warner committed that MSO to spend \$4 billion on upgrades over a five-year period and to provide 100 percent of its subscribers with 550 MHz service and 50 percent of its subscribers with 750 MHz service. *Social Contract for Time Warner*, 11 FCC Rcd 2788 (1995). Time Warner's final annual social contract implementation report indicates that the MSO has met its commitment under the Social Contract. Letter from Arthur Harding to Royce Sherlock, Cable Services Bureau, May 3, 2001, attaching Time Warner Cable Social Contract Progress Report 2000. The social contract originally agreed upon with Continental Cablevision, now administered by AT&T and Cox, commits that MSO to spend \$1.7 billion on upgrades over a four-year period ending December 31, 2000, and also to provide 100 percent of its subscribers with 550 MHz service and 50 percent of its subscribers with 750 MHz service. *Social Contract for Continental Cablevision, Inc.* (subsequently MediaOne), 13 FCC Rcd 11118 (1996). In its final report, AT&T indicates that it met its commitment under the Social Contract. Letter from Richard D. Treich, Senior Vice President, AT&T Broadband, LLC. to Magalie Roman Salas, Secretary, FCC, May 4, 2001, attaching Annual Report for In re Social Contract for Continental Cablevision. Cox submits that it has met its commitment under the Social Contract. Letter from Peter H. Feinberg, Attorney,

(continued...)

spend \$2.2 billion by year-end.<sup>84</sup> Comcast reported cable-related capital expenditures of \$1.2 billion in 2000, and is expected to spend approximately \$1.8 billion by the end of 2001.<sup>85</sup> AT&T's broadband unit reported capital expenditures of \$4.2 billion in 2000, of which approximately \$1.6 billion were related to the launch of new services and \$1.3 billion for plant upgrades.<sup>86</sup> AT&T Broadband plans to spend \$3.6 billion in capital in 2001, with the majority focused on providing advanced services and plant upgrades.<sup>87</sup> Adelphia reported capital expenditures of approximately \$1.5 billion in 2000.<sup>88</sup> As of June 2001, Adelphia had spent \$1.1 billion and expects that by year-end 2001, it will have spent a total of \$2 billion.<sup>89</sup> Cox reported total capital spending of \$2.2 billion in 2000.<sup>90</sup> As of June 2001, Cox had spent approximately \$1.1 billion, and expects that by year-end it will have spent a total of \$2 billion.<sup>91</sup> Cablevision reported capital expenditures of about \$912 million in 2000 and is expected to spend \$1.1

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Dow, Lohnes & Albertson, PLLC, to Magalie Roman Salas, Secretary, FCC, April 2, 2001, attaching Annual Report for Social Contract for Continental Cablevision. The Social Contract agreed to by Comcast commits the MSO to provide free cable connections, Internet, and modems to schools and libraries for certain systems covered under the contract. The Fifth Annual Progress Report for the Social Contract with Comcast reports that as of Apr. 2, 2001, Comcast continues to provide services and materials in accordance with the terms of the Social Contract and that it has completed its upgrade obligations under the contract. *Social Contract for Comcast Cable Communications, Inc.*, 13 FCC Rcd 3612 (1997); Letter from Peter H. Feinberg, Attorney, Dow, Lohnes & Albertson, PLLC, to Magalie Roman Salas, Secretary, FCC, April 2, 2001, attaching Fifth Annual Progress Report pursuant to the Comcast Social Contract.

<sup>84</sup> AOL Time Warner, Inc., *SEC Form 10-Q for the Quarter Ended June 30, 2001*, at 15.

<sup>85</sup> Comcast Reply Comments at 13. As a result of these capital expenditures, Comcast reports that as of June 30, 2001, 86 percent of its customers were served by systems of 550 MHz or greater, and 70 percent of its systems were served by 750 MHz or greater. It expects that by year-end, 94 percent of customers will be served by 550 MHz or greater and 85 percent with 750 MHz or greater. Comcast Reply Comments at 13.

<sup>86</sup> AT&T Corp., *AT&T Fourth Quarter Pro Forma Revenue Increases 2.5 Percent* (press release), Jan. 29, 2001. AT&T's investments have resulted in the upgrade of over 71 percent of its cable plant to at least 550MHz, with 56 percent of the network upgraded to 750 MHz. AT&T Comments at 14-15

<sup>87</sup> AT&T Corp., *AT&T Details Results and Outlines Growth Plans for Broadband Business* (press release), July 24, 2001.

<sup>88</sup> Adelphia Communications Corp., *SEC Form 10-K for the Year Ended December 31, 2000*, at 31.

<sup>89</sup> Adelphia Communications Corp., *SEC Form 10-Q for the Quarter Ended June 30, 2001*, at 20.

<sup>90</sup> Cox Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2000*, at 35 and 44. These expenditures were primarily directed at upgrading and rebuilding its network. *Id.* at 35. At the end of 2000, Cox had upgraded 70 percent of its networks to a bandwidth capacity of 750 MHz or greater and anticipates that approximately 83 percent of its networks will have bandwidth capacity of 750 MHz or greater by the end of 2001. *Id.* at 1.

<sup>91</sup> Cox Communications, Inc., *SEC Form 10-Q for the Quarter Ended June 30, 2001*, at 20. By the end of 2000, Cox had upgraded 70 percent of its networks to a bandwidth capacity of 750 MHz or greater. Cox expects by year-end 2001, 83 percent of its networks will have bandwidth capacity of 750 MHz or greater. Cox Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2001*, at 1.

billion in 2001.<sup>92</sup> Charter reported cable-related capital expenditures of almost \$2.83 billion in 2000, and is expected to spend approximately \$2.9 billion during 2001.<sup>93</sup>

#### 4. Provision of Advanced Broadband Services

34. Advanced services continue to be deployed at a rapid pace. With most systems able to deliver digital video, and many systems able to deliver cable modem and/or cable telephone service, MSOs are beginning to experiment with the deployment of other advanced service offerings such as video-on-demand (“VOD”) and Internet protocol (“IP”) telephony over cable systems.

35. **Digital Video Services.** Most major cable operators currently offer a selection of digital video packages offered on the expanded capacity of cable systems that have converted to digital. The basic digital tier typically includes about 40 additional channels of audio and video. In addition, some MSOs have chosen to offer digital tiers of different genres, such as family, sports, or movie channels.

36. As we have discussed in past *Reports*, subscriber reception of digital video requires a set-top device to decompress and decode incoming digital signals and to translate the signals into the signals used by current television sets. While its primary purpose is to convert digital signals to analog form, these digital set-top boxes can allow cable operators to offer such additional services as PVRs, games, home networking, and e-commerce.<sup>94</sup> The next generation set-top box was scheduled to be deployed in 2001, but its release has been delayed and analysts expect it will be deployed in 2002.<sup>95</sup>

37. Cable operators are still providing set-top boxes to the consumer for a monthly fee; though the Commission has undertaken a proceeding to facilitate retail availability of these devices to consumers.<sup>96</sup> The Commission continues to evaluate its rules to determine whether changes are required to meet the statutory objective of creating a retail market for navigation devices.<sup>97</sup>

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<sup>92</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2001 Financial Results for Cablevision NY Group and Rainbow Media Group* (press release), Aug. 9, 2001.

<sup>93</sup> Charter Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2001*, at 39. As a result of these expenditures, more than 54 percent of Charter subscribers were served by systems with broadband capacity of 750 MHz or greater. Charter expects by year-end 2001, nearly 68 percent of its subscribers will be served by systems with broadband capacity of 750 MHz or greater. *Id.* at 15.

<sup>94</sup> Merrill Lynch - Q2/Q3 Preview, at 16.

<sup>95</sup> Richard Bilotti, Benjamin Swinburne, and Megan Lynch, *Industry Review: An Early Look at 2005* (“Morgan Stanley – Industry Review”), Morgan Stanley Dean Witter, Jan. 2, 2001, at 16; Michael Lafferty, *Taking a Look at the Thick and the Thin of It*, CED, Sept. 2001, at 29.

<sup>96</sup> *See 2000 Report*, 16 FCC Rcd at 6026-7. Section 629 of the Communications Act requires that the Commission adopt regulations to assure the commercial availability of navigation devices. In 1998, the Commission adopted rules to implement Section 629. *See* 47 U.S.C. § 549; *see also Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CS Docket No. 97-80, Report and Order (“*Navigation Report and Order*”), 13 FCC Rcd 14775 (1998); *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CS Docket 97-80, Order on Reconsideration (“*Navigation Reconsideration*”), 14 FCC Rcd 7596 (1999).

<sup>97</sup> *Implementation of Section 304 of the Telecommunications Act of 1996 - Commercial Availability of Navigation Devices*, CS Docket No. 97-80, Further Notice of Proposed Rule Making and Declaratory Ruling, 15 FCC Rcd (continued....)

38. As of year-end 2000, it was estimated that there were more than 8.7 million digital video subscribers.<sup>98</sup> As of June 2001, there were an estimated 12 million digital cable subscribers industry-wide.<sup>99</sup> Some predict that digital video subscriptions will reach 15.1 million by the end of 2001.<sup>100</sup>

39. As of year-end 2000, Cox reported approximately 840,000 digital video subscribers.<sup>101</sup> As of June 2001, Cox reported approximately one million digital video subscribers.<sup>102</sup> Analysts estimate that by year-end 2001, Cox will have as many as 1.3 million subscribers.<sup>103</sup> As of June 2001, Comcast reported 1.8 million digital video subscribers and expects to end the year with as many as 2.2 million digital video subscribers.<sup>104</sup> As of June 2001, Adelphia had approximately 1.5 million digital video subscribers with a target of 1.8 million digital video subscribers by year-end.<sup>105</sup> As of year-end 2000, AOL Time Warner had more than 1.7 million digital video subscribers.<sup>106</sup> By June 2001, AOL Time Warner had as many as 2.5 million subscribers and analysts expect that by year-end 2001, AOL Time Warner will have more than three million digital video subscribers.<sup>107</sup> As of June 2001, AT&T reported 3.1 million digital video subscribers.<sup>108</sup> Analysts expect AT&T will have as many as 3.5 million digital video subscribers as of year-end 2001.<sup>109</sup> Charter Communications provided digital video service to approximately 1.6 million subscribers as of June 2001, and analysts expect that by year-end it will serve as many as two million subscribers.<sup>110</sup> As of June 2001, Cablevision was only conducting technical trials of digital video service,

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18199 (2000); *Compatibility Between Cable Systems And Consumer Electronics Equipment*, PP Docket No. 00-67, Report and Order, 15 FCC Rcd 17568 (2000).

<sup>98</sup> Richard Bilotti, Benjamin Swinburne, and Megan Lynch, *Industry Review: The Marquis de Broadbandbury: Parte Deux*, ("Morgan Stanley – Broadband Parte Deux"), Morgan Stanley Dean Witter, July 3, 2001, at 22.

<sup>99</sup> NCTA Comments at 26.

<sup>100</sup> Megan Larson, *Digital Dollar Downward*, MediaWeek Online, June 18, 2001; Morgan Stanley – Industry Review, at 14.

<sup>101</sup> Cox Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2000*, at 4.

<sup>102</sup> Cox Communications, Inc., *Cox Communications Announces Third Quarter Financial for 2001* (press release), Oct. 25, 2001.

<sup>103</sup> Merrill Lynch – Q2/Q3 Preview, at 53; Raymond Lee Katz, Gloria Radeff, Bryan Goldberg, *Cable TV & Broadband*, Bear Stearns, May 2001, at 145.

<sup>104</sup> Comcast Comments at 9; Comcast Reply Comments at 7.

<sup>105</sup> Adelphia Communications Corp., *Adelphia Communications Announces Second Quarter 2001 Results* (press release), Aug. 14, 2001.

<sup>106</sup> AOL Time Warner, Inc., *SEC Form 10-K For the Transition Period from July 1, 2000 to December 31, 2000*, at I-10.

<sup>107</sup> AOL Time Warner, Inc., *SEC Form 10-Q for the Quarter Ended June 30, 2001*, at 15.

<sup>108</sup> AT&T Comments at 15.

<sup>109</sup> Morgan Stanley – Broadband Parte Deux, at 22.

<sup>110</sup> Charter Communications, Inc., *Charter Communications Exceeds Revenue, Operating Cash Flow Guidance* (press release), July 30, 2001.

but it expects to offer the service commercially by October 2001.<sup>111</sup> Analysts expect that by year-end 2001, Cablevision will have as many as 50,000 digital video subscribers.<sup>112</sup>

40. **Video-on-Demand.**<sup>113</sup> VOD services allow subscribers to view movies at any time or on a time-staggered basis from a library of options. Many of the top MSOs are conducting trials of VOD or have moved to commercial offerings in some markets. According to one analysis, VOD will generate revenues of more than \$65 million by year-end 2001 and \$420 million in 2002.<sup>114</sup>

41. Cox continues to test VOD in its Hampton Roads Market, and has begun a market rollout in its San Diego markets.<sup>115</sup> Comcast is currently conducting trials of VOD service in four markets and expects to offer VOD to as many as two million customers by year-end 2001.<sup>116</sup> Adelphia has also been testing VOD in its Cleveland Heights, Ohio, market, covering an initial 1000 suburban Cleveland homes, with a planned commercial roll out to all its Cleveland area systems encompassing 284,000 cable subscribers.<sup>117</sup> Charter has deployed VOD service in several of its major markets and expects that, by year-end 2001, it should have VOD available to almost 40 percent of its customer base.<sup>118</sup> Charter expects to complete VOD rollout in all its markets by year-end 2002.<sup>119</sup> Time Warner Cable is continuing the trials it started last year in Tampa Bay/St. Petersburg, Florida, Honolulu, Hawaii; and Austin, Texas.<sup>120</sup> The company is also conducting a subscription VOD trial in its Columbia, South Carolina,

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<sup>111</sup> Cablevision Reply Comments at 4.

<sup>112</sup> Morgan Stanley – Broadband Parte Deux, at 22.

<sup>113</sup> See ¶¶ 187, 188 *infra*.

<sup>114</sup> Yankee Group, *Video-on-Demand Will Generate Revenues of Nearly \$2 Billion in 2005* (press release), June 25, 2001.

<sup>115</sup> Cox Communications, Inc., *Cox Communications Launches Entertainment-On-Demand in Hampton Roads, Virginia* (press release), Nov. 29, 2001; Cox Communications, Inc., *Cox Communications Launches Movies--On-Demand Service in San Diego* (press release), Sept. 25, 2000; Merrill Lynch – Q2/Q3 Preview, at 53; Michael Grotticelli and Ken Kerschbaumer, *Slow and Steady*, *Broadcasting & Cable*, July 9, 2001, at 38-40 (“Grotticelli”).

<sup>116</sup> Comcast Reply Comments, at 15; NCTA Comments at 28; Andrew Grossman, *Comcast’s VOD System First to Link With Gemstar*, *Hollywood Reporter*, Oct. 5, 2001, at [http://www.hollywoodre...display.jsp?vnu\\_content\\_id=1070446](http://www.hollywoodre...display.jsp?vnu_content_id=1070446); Craig Leddy, *Sneaking a Peek at Comcast’s ITV Plans*, *Multichannel News*, Aug. 27, 2001.

<sup>117</sup> Morgan Stanley – Broadband Parte Deux, at 82; *Rigas and Sie Mark Inaugural S-VOD Launch for Adelphia and Starz Encore*, *C-Net Investor*, Oct. 9, 2001.

<sup>118</sup> Charter Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2001*, at 12; *Cable Insiders Weigh in on ITV’s Promise*, *Multichannel News*, July 23, 2001. Charter credits the introduction of VOD and high speed data in its top markets to keeping customer churn low. See *Charter Shows Strong Growth but Trims Outlook*, *Broadband-Daily.com*, Nov. 2, 2001. As of November 1, 2001, Charter reported rolling out VOD to the following markets: Glendale, California; Birmingham, Alabama; Atlanta, Georgia; Pasadena and Long Beach, California; St. Louis, Missouri; Fort Worth, Texas; Greenville-Spartanburg, South Carolina; Hickory, North Carolina; and Slidell, Louisiana. It expects to bring VOD to two million homes by the end of 2001. *Id.*

<sup>119</sup> Charter Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2000*, at 12; *Cable Insiders Weigh in on ITV’s Promise*, *Multichannel News*, July 23, 2001.

<sup>120</sup> AOL Time Warner, Inc., *SEC Form 10-K For the Transition Period from July 1, 2000 to December 31, 2000*, at I-10; NCTA Comments at 28; *Grotticelli* at 38-40.

market featuring on-demand access to a library of HBO programming for an additional monthly fee of \$3.95.<sup>121</sup> AT&T is test marketing VOD in certain markets.<sup>122</sup>

42. **High-Definition Television (“HDTV”).** In October 2001, Comcast announced the launch of an HDTV service to more than 1.3 million customers.<sup>123</sup> The service will provide access to high-definition broadcasts of ABC, NBC, CBS, HBO, and Showtime. Since most commercial television sets do not have built-in HDTV tuners, Comcast will make set-top tuners available to customers. Comcast digital cable customers who have HDTV-ready sets will now be able to rent or purchase a set-top box similar to their current digital tuner, which will allow them to view all channels broadcast in high-definition. Time Warner has agreed to carry HDTV signals that will be broadcast by television stations owned and operated by the ABC, CBS, NBC, and Fox networks, and also by nearly all public television stations, in Time Warner Cable’s operating areas. Time Warner Cable is also carrying the HDTV versions of HBO and Showtime in certain areas.<sup>124</sup>

43. **Internet and High-Speed Data Services.** Dial-up Internet access is the most popular way to access the Internet. As of year-end 2000, 84.6 percent of all Internet households were accessing the Internet using dial-up modems.<sup>125</sup> It is projected that telephone dial-up will remain the principal means of accessing the Internet until about 2004, when it is expected that only 44.4 percent of Internet households will use dial-up access, with the remaining 55.7 percent accessing the Internet through broadband facilities.<sup>126</sup>

44. While cable modem access is the primary means of accessing the Internet over broadband networks, cable’s share of the broadband Internet access market continues to decrease. DSL is the most significant broadband competitor to cable modem service. As of year-end 2000, cable modem service was available to 58.5 million homes and there were approximately 3.9 million cable subscribers, whereas DSL was available to 37.6 million homes and had approximately 1.9 million subscribers.<sup>127</sup> As of June 2001, cable modem service was available to approximately 67.3 million homes and there were approximately 5.6 million cable modem subscribers, while DSL was available to an estimated 45 million

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<sup>121</sup> This service proved to be popular with an 11.5 percent take rate among 328,000 basic subscribers, which at times created too high a concurrent demand for programming, forcing TWC to scale back the trial in order to improve network traffic engineering. See David Iler, *VOD Shining Brightly in Cable Universe*, *Broadband Week*, Aug. 6, 2001. TWC also is extending the trial to its systems in Summerville and Myrtle Beach, South Carolina. *Mass Media*, *Comm. Daily*, Nov. 6, 2001.

<sup>122</sup> AT&T Comments at 15.

<sup>123</sup> Comcast Corp., *Comcast Launches HDTV* (press release), Oct. 29, 2001.

<sup>124</sup> AOL Time Warner, Inc., *SEC Form 10-K for the Transition Period from July 1, 2000 to December 31, 2000*, at I -10.

<sup>125</sup> Morgan Stanley – Broadband Parte Deux, at 46.

<sup>126</sup> *Id.* Broadband technologies include cable broadband, telephone company digital subscriber line (“DSL”), broadband wireless, and broadband satellite. By 2004, analysts expect 28.9 percent of households will access the Internet through cable broadband, 21.1 percent through DSL and 5.7 percent through wireless and satellite broadband technologies. *Id.* Broadband technologies allow users to access the Internet at much greater speeds than is available over traditional dial-up connections. See *1999 Report*, 15 FCC Rcd at 1003-04.

<sup>127</sup> See Morgan Stanley – Broadband Parte Deux, at 46.

homes with approximately three million subscribers.<sup>128</sup> It is estimated that as of year-end 2001, cable will be available to more than 81 million homes with more than 7.2 million subscribers, whereas DSL is expected to be available to as many as 51.5 million homes with approximately 4.3 million subscribers.<sup>129</sup> Satellite and wireless technologies currently have eight percent of the market and are not expected to increase market share over the next several years.<sup>130</sup>

45. CableLabs created the cable modem standard, DOCSIS (Data Over Cable Service Interface Specification) in an effort to ensure the interoperability and retail sale of cable modem technologies.<sup>131</sup> Equipment conforming to the DOCSIS standard is eligible to be CableLabs Certified.<sup>132</sup> There are now 193 cable modems and 26 cable modem termination systems that have been certified by CableLabs on the DOCSIS 1.0 standard.<sup>133</sup> As of June 2001, certification for DOCSIS 1.1 had begun, and as of December 2001, seven companies had achieved certification for nine modems that comply with the DOCSIS 1.1 specification, and two more companies had gained qualification status for their DOCSIS 1.1 cable modem termination systems.<sup>134</sup> In August 2001, CableLabs announced the establishment of DOCSIS 2.0, which incorporates standards to increase cable bandwidth for data transmissions without requiring any physical rebuilding of cable networks.<sup>135</sup> Certification testing for DOCSIS 2.0 equipment is expected sometime next year.

46. Virtually all the major MSOs offer cable modem service in portions of their nationwide service areas. As we reported last year, unlike high-speed access offered over the telephone network where the customer can select the Internet Service Provider (“ISP”) of his own choice, the cable ISP is selected by the cable provider and offered to customers in that cable operator’s individual regions.<sup>136</sup>

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<sup>128</sup> *Id.* June data for DSL homes passed are based on year-end estimate by Morgan Stanley. *Id.* TeleChoice Inc., *TeleChoice2Q00 DSL Deployment Summary*, at <http://www.xdsl.com>; Kinetic Strategies, Inc., *Cable Modem Market Stats & Projections*, Cable Datacom News, at <http://www.cabledatcomnews.com/cm/cmic/cm16.html>. Of the approximately 3.3 million DSL subscribers, only 2.5 million residential subscribers, or 74 percent, as compared with nearly 100 percent of cable modem subscribers. See TeleChoice Inc., *TeleChoice2Q00 DSL Deployment Summary*, at <http://www.xdsl.com>.

<sup>129</sup> NCTA Comments at 27 (citing Morgan Stanley); see Morgan Stanley – Broadband Parte Deux, at 46.

<sup>130</sup> *Id.*

<sup>131</sup> See 2000 Report, 16 FCC Rcd at 6030.

<sup>132</sup> CableLabs Certified means that a modem complies with CableLab’s cable modem specifications which ensures that it will interoperate with qualified cable systems worldwide. CableLabs, *CableLabs Certifies More Modems* (press release), Oct. 20, 2000.

<sup>133</sup> CableLabs, *CableLabs Certifies 7 More DOCSIS 1.1 Modems, Continuing Cable Data Advances* (press release), Dec. 20, 2001, at [http://cablelabs.com/news\\_room/PR/01\\_pr\\_cw20\\_122001.html](http://cablelabs.com/news_room/PR/01_pr_cw20_122001.html).

<sup>134</sup> *Id.* See also ¶ 194 *infra*.

<sup>135</sup> CableLabs, *CableLabs Creating Advanced Modem Spec to Enable 30 Mbps in Upstream* (press release), Aug 31, 2001.

<sup>136</sup> Most cable providers hold interest in the chosen ISP and also provide proprietary content to that ISP. See *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, GN Docket No. 00-185, Notice of Inquiry (“*High-Speed Access Inquiry*”), 15 FCC Rcd 19287 (2000).

Most cable operators offer only one ISP to customers in a given system,<sup>137</sup> although there has been a move recently within the industry to offer multiple ISPs to customers in a given cable system.<sup>138</sup> For example, pursuant to its merger obligations with the Federal Trade Commission, AOL Time Warner has announced that, in addition to Road Runner, it will carry the AOL Internet service as well as unaffiliated ISPs Earthlink and Juno.<sup>139</sup> In September 2001, AOL Time Warner started selling Earthlink high-speed access over its cable lines in Columbus, Ohio, and Syracuse, New York.<sup>140</sup> AOL Time Warner plans to sell Earthlink high-speed service in numerous additional Time Warner markets by year-end.<sup>141</sup> In addition, AT&T voluntarily conducted a technical and operational multiple-ISP trial in Boulder, Colorado, with plans for the commercial rollout of multiple-ISP service in several major cable markets by mid-2002.<sup>142</sup>

47. Many MSOs have offered high-speed Internet access through Excite@Home, which filed for bankruptcy in September 2001.<sup>143</sup> As a result, in December 2001, AT&T terminated its @Home service and switched its subscribers to its own network, while other MSOs will continue to provide @Home service until February 28, 2002, when they will have transitioned their subscribers to other services.<sup>144</sup> Cox has traditionally offered high-speed Internet access service either under the brand Cox@Home, Road Runner, or Cox Express.<sup>145</sup> However, following the bankruptcy of Excite@Home, Cox announced that it plans to migrate all of its current high-speed cable modem subscribers to Cox's proprietary high speed

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<sup>137</sup> For example, Adelphia offers high-speed Internet access service under the brands Adelphia Power Link, PowerLink@Home, the ISP Channel and Convergence.com. Each system, however, offers only one ISP to its subscribers, and in some cases, third-party brands are re-branded under the Adelphia brand name.

<sup>138</sup> In this regard, the Commission released a the *High-Speed Access Inquiry* on September 28, 2000, to determine what regulatory treatment, if any, should be accorded to cable modem service and the cable modem platform used in providing this service. See *2000 Report*, 16 FCC Rcd 6030; see also *High-Speed Access Inquiry*, n. 136 *supra*.

<sup>139</sup> Letter from Steven N. Teplitz, Vice President, Communications Policy and Regulatory Affairs, to Magalie Roman Salas, Secretary, FCC, Oct. 3, 2001. AOL Time Warner's deal with Juno outlines that Time Warner will be responsible for billing and Juno will be responsible for customer service, except for customer service that relates to the cable infrastructure. Both companies will be free to market the service independently. *Juno, AOL Time Warner Strike Open Access Pact*, Reuters, Apr. 26 2001; Thor Olavsrud, *Juno Seals Open Access Pact with AOL Time Warner*, InternetNews, Apr. 26, 2001.

<sup>140</sup> Letter from Steven N. Teplitz, Vice President, Communications Policy and Regulatory Affairs, to Magalie Roman Salas, Secretary, FCC, Oct. 3, 2001; AOL Time Warner, Inc., *Time Warner Communications Columbus Offers Choice of ISPs With High-Speed Cable Modem Service* (press release), Sept. 26, 2001; AOL Time Warner, Inc., *Time Warner Communications Syracuse Offers Choice of ISPs With High-Speed Cable Modem Service* (press release), Sept. 26, 2001.

<sup>141</sup> Time Warner Cable, *EarthLink Will Launch in Time Warner Cable's Columbus and Syracuse Operations in September and Plans Broad Deployment by Year End* (press release), July 16, 2001.

<sup>142</sup> AT&T Comments in *High-Speed Access Inquiry* at 61-66; Letter from Joan Marsh, Director Federal Government Affairs, AT&T, to Magalie Roman Salas, Secretary, FCC, Feb. 28, 2001; AT&T Comments in *High-Speed Access Inquiry* at 61.

<sup>143</sup> Excite@Home, *Excite@Home's Broadband Service to Be Acquired by AT&T* (press release), Sept. 28, 2001.

<sup>144</sup> Excite@Home, *Excite@Home Announces AT&T Termination of Pending Asset Purchasing Agreement and Transition Agreements with Several Cable Companies* (press release), Dec. 4, 2000. See also Christopher Stern, *At Home Won't Try to Stay in Business*, Washington Post, Dec. 5, 2001, at E1.

<sup>145</sup> Cox Communications, Inc., *Cox Communications Announces Fourth Quarter Financial Results for 2000* (press release), Feb. 6, 2001.



network.<sup>146</sup> In addition, Cox has begun a technical trial with AOL and EarthLink in its El Dorado, Arkansas, system.<sup>147</sup> Comcast also announced that it plans to migrate its current Comcast@Home subscribers to its own high-speed network.<sup>148</sup> Additionally, in November 2000, Comcast announced that it will offer Juno Express in a trial to take place in its Philadelphia area system.<sup>149</sup> In March 2001, Earthlink announced that it also would participate in that trial.<sup>150</sup>

48. As of year-end 2000, Cox had approximately 480,000 high-speed data subscribers, and, as of June 2001, Cox had approximately 668,000 high-speed data subscribers.<sup>151</sup> Analysts forecast that Cox could end 2001 with as many as 880,000 high-speed data subscribers.<sup>152</sup> As of June 2001, Comcast had approximately 675,000 high-speed data subscribers and it expects to have as many as 950,000 high-speed data subscribers by year-end 2001.<sup>153</sup> As of June, 2001, AT&T had approximately 1.3 million broadband data subscribers.<sup>154</sup> As of June 2001, Cablevision had 367,800 cable modem subscribers and expects to have more than 475,000 subscribers by year-end 2001.<sup>155</sup> As of June 2001, Charter had 419,000 high-speed data subscribers and it expects that by year-end 2001 it will have as many as 575,000 high-speed data subscribers.<sup>156</sup> As of June 2001, AOL Time Warner had 1.4 million subscribers to its own cable

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<sup>146</sup> Cox Communications reached an agreement with Excite@Home that will allow the company's 555,000 Cox@Home customers to maintain Internet access until the company transitions to its own high-speed network. Cox Communications, Inc., *Cox Communications Announces Agreement to Avoid Disruption of Cox@Home Internet Service* (press release), Dec. 3, 2001.

<sup>147</sup> Cox Communications, Inc., *Cox Communications and Earthlink Agree to High-Speed Cable-Based Internet Service Trial* (press release), Apr. 24, 2001.

<sup>148</sup> Comcast also reached an agreement with Excite@Home that will allow the company's Comcast@Home customers to maintain Internet access until the company transitions them to its own high-speed network. Comcast Corp., *Comcast Unveils High-Speed Internet Network Plans; Gains Final Approval For Excite@Home Agreement* (press release), Dec. 11, 2001.

<sup>149</sup> Comcast Corp., *Comcast and Juno Announce Multiple ISP Trial* (press release), Nov. 29, 2000. See also Comcast Comments in *High-Speed Access Inquiry* at 37-38. Comcast has indicated that it was considering adding multiple ISPs to this trial early in 2002. Comcast Reply Comments in *High-Speed Access Inquiry* at 16-17.

<sup>150</sup> EarthLink, *Comcast and EarthLink Announce Technical Trial of High-Speed Cable-Based Internet Service* (press release), Mar. 27, 2001.

<sup>151</sup> Cox Communications, Inc., *Cox Communications Announces Third Quarter Financial for 2001* (press release), Oct. 25, 2001.

<sup>152</sup> Richard Bilotti, Benjamin Swinburne, and Megan Lynch, *Broadband/CATV Industry Review: An Early Look at 2005*, Morgan Stanley Dean Witter, Jan. 2, 2001, at 112-113.

<sup>153</sup> Comcast Comments at 9.

<sup>154</sup> AT&T Comments at 15.

<sup>155</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2001 Financial Results for Cablevision NY Group and Rainbow Media* (press release), Aug. 9, 2001.

<sup>156</sup> Charter Communications, Inc., *Charter Communications Exceeds Revenue, Operating Cash Flow Guidance* (press release), July 30, 2001.

modem service.<sup>157</sup> As of June 2001, Adelphia had more than 250,000 cable modem subscribers and expects to have as many as 375,000 by year-end.<sup>158</sup>

49. As we have reported in the past, a small portion of cable Internet access continues to be delivered through a television receiver rather than a personal computer.<sup>159</sup> These services typically do not provide complete access to the Internet, but provide such basic applications as e-mail, Web browsing, and "hyperlinking" technology.<sup>160</sup> Many of these services are now considered by industry analysts to be interactive television ("ITV") services, instead of Internet access services.<sup>161</sup> Nationwide providers of such service include WebTV, Worldgate, and America Online which provides AOLTV.<sup>162</sup> Wink Communications offers a similar product marketed primarily as an interactive tool for the enhancement of multichannel video programming. Charter is planning to roll out an interactive television service called Digeo Broadband which will provide interactive television and limited Internet functionality including e-mail, chat, and news and travel information.<sup>163</sup>

**50. Telephone Services Offered by Cable Operators.** Circuit-switched telephony still is the only type of commercially-deployed cable telephony available, but trials continue for cable-delivered IP telephony.<sup>164</sup> MSOs, such as Cox and AT&T, continue to deploy circuit-switched cable telephony, and others, such as Cablevision and Comcast, offer cable telephony where it has already been deployed. Several MSOs, including AT&T, AOLTV, Comcast, and Charter, are currently testing IP telephony, while Cox has plans for IP telephony trials in 2002.

51. As we reported last year, CableLabs is managing a project, called PacketCable, aimed at identifying, qualifying, and supporting products that support Internet over cable-based multimedia services such as IP telephony.<sup>165</sup> In May 2000, CableLabs announced the release of the final feature set for PacketCable residential IP voice service.<sup>166</sup> Following that, CableLabs released draft compliance test

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<sup>157</sup> AOL Time Warner, Inc., *SEC Form 10-Q for the Quarter Ended June 30, 2001*, at 15.

<sup>158</sup> Adelphia Communications Corp., *Adelphia Communications Announces Second Quarter 2001 Results* (press release), Aug. 14, 2001.

<sup>159</sup> *1998 Report*, 13 FCC Rcd at 24315; *1999 Report*, 15 FCC Rcd at 1008; *2000 Report*, 16 FCC Rcd 6033-4.

<sup>160</sup> *2000 Report*, 16 FCC Rcd at 6033-4. Hyperlinking, in this context, is the technology that combines broadcast or cable television and telephone Internet connections to offer consumers access to supplemental information to television shows, one-button ordering, and the ability to play along with television shows when applicable.

<sup>161</sup> See Spencer Wang, *Interactive Television*, ING Barrings Furman Selz, Dec. 2000.

<sup>162</sup> For an explanation of how the WebTV and Worldgate services operate, see *1998 Report*, 13 FCC Rcd at 24315-6.

<sup>163</sup> Charter Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2000*, at 11.

<sup>164</sup> As we have reported in past *Reports*, a circuit-switched cable telephony voice call and an IP telephony voice call both begin with special equipment that connects a household's twisted pair infrastructure with its cable infrastructure. Cable circuit-switched telephony, however, eventually turns the call over to traditional "circuit switched" processing, while IP telephony eventually turns the call over to the network of the Internet for IP processing. IP telephony processes voice telephone calls much like data are processed on the Internet; that is, digitized pieces of data are divided into discrete packets and are transported over the Internet following the path that does not resist transfer.

<sup>165</sup> See *2000 Report*, 16 FCC Rcd at 6034-5.

<sup>166</sup> *Id.*

plans for PacketCable interface specifications.<sup>167</sup> In May 2001, the Society for Cable Telecommunications Engineers (“SCTE”) and the European Telecom Standards Institute (“ETSI”) announced a set of new technical standards for offering IP telephony based on PacketCable technical standards established by CableLabs.<sup>168</sup> In March 2001, leaders in the IP telephony market congregated for the World Telecom Policy Forum in Geneva, Switzerland to discuss the future regulatory environment in IP telephony.<sup>169</sup>

52. As one of the first cable operators to offer a telephony product, Cox Communications has long been regarded as the leader in cable telephony deployment. As of June 2001, Cox provided facilities-based cable telephony services to approximately 344,000 subscribers nationwide.<sup>170</sup> Cox reports an average 14.5 percent penetration in areas where its local telephone service is available.<sup>171</sup> Cox expects to start testing IP telephone service in 2002.<sup>172</sup> AT&T provided telephone services to more than 848,000 customers, as of June 30, 2001.<sup>173</sup> In addition to circuit-switched technology, AT&T has also been pursuing Internet voice applications for cable telephony. In March 2000, AT&T purchased a 32 percent equity investment in Net2Phone giving it a 39 percent voting stake.<sup>174</sup> In January 2001, it announced that it would expand its trial of local Internet telephone service to the Rochester, New York, area from its initial test site in Portland, Maine.<sup>175</sup> The service, called Line Runner, is being marketed to Road Runner customers as a second line service only.<sup>176</sup>

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

<sup>168</sup> CableLabs, *International Standardization Achieved for Cable Internet Protocol Architecture* (press release), May 23, 2001.

<sup>169</sup> International Telecommunication Union, *The Telecom Revolution Brought About by IP Telephony to be at the Top of the International Agenda as Government and Industry Converge on Geneva* (press release), Feb. 21, 2001; International Telecommunication Union, *ITU World Policy Forum Closes With Consensus on a Way Forward for Internet Protocol Telephony* (press release), Mar. 9, 2001.

<sup>170</sup> Cox Communications, Inc., *Cox Digital Telephone Scores High in Customer Satisfaction* (press release), Aug. 14, 2001.

<sup>171</sup> *Cable Telephony Helps Drive Revenue at Cox*, TR Daily, July 23, 2001, at 4-5. As of August 2001, Cox reports 24 percent total market penetration in Orange County, California, and 40 percent penetration to telephone-ready homes in areas of the Omaha market. See Cox Communications, Inc., *Cox Digital Telephone Scores High in Customer Satisfaction* (press release), Aug. 14, 2001.

<sup>172</sup> Cox Communications, Inc., *Written Testimony of James O. Robbins CEO, Cox Communications, Inc. Before the Senate Judiciary Subcommittee on Antitrust, Business Rights and Competition Hearing on the Status of Competition in the Telephone Local Exchange Market* (transcript), May 2, 2001, at 5.

<sup>173</sup> AT&T Comments at 15; AT&T Corp., *AT&T Details Results and Outlines Growth Plans for Broadband Business* (press release), July 24, 2001.

<sup>174</sup> AT&T Corp., *AT&T-Led Consortium to Acquire 39 Percent Voting Stake in Net2Phone* (press release), Mar. 31, 2001.

<sup>175</sup> AOL Time Warner, Inc., *Time Warner Cable Expands Internet Telephone Test to Rochester Road Runner Customers* (press release), Jan. 31, 2001.

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

53. As a result of its acquisition of Jones Intercable in March 2000, Comcast now has 15,000 cable telephony customers in the Washington, D.C., metropolitan area.<sup>177</sup> Comcast also offers telephony service in Florida and Michigan.<sup>178</sup> Although Comcast is not interested in deploying circuit-switched service of its own, it has chosen to maintain the service where it has already been deployed. Cablevision offers limited facilities-based residential circuit-switched telephony in New York through its commercial telephone business, Lightpath.<sup>179</sup> As of June 2001, Lightpath reported almost 12,500 cable telephony customers, representing 8.2 percent penetration of the 153,000 homes marketed.<sup>180</sup> Charter Communications is not presently pursuing commercial deployment of circuit-switched cable telephony. However, since December 1999, Charter has been testing IP telephony in several field trials.<sup>181</sup>

54. **Multi-Service Offerings.** Over the last several years, cable operators have been upgrading their systems so that they can offer digital video, access to the Internet, and telephone services. Over the past year, the MSOs have proven that they can successfully deploy multiple services, although some services, such as telephony, have not been as profitable as once expected. However, MSOs have found value in all their advanced services as a way to reduce basic cable video churn. For example, Adelphia is proposing to offer video-on-demand as an adjunct service to premium service subscribers, perhaps as a means of retaining premium subscriptions. In addition, several analysts note that cable telephony is valuable as a tool to increase video penetration and lower customer loss, especially to DBS.<sup>182</sup> While individually some advanced services are not considered particularly lucrative to the MSOs, these services appear to be valuable as a package.

## **B. Direct-To-Home Satellite Services**

### **1. Direct Broadcast Satellite Services**

55. DBS service is a nationally distributed subscription video service that delivers programming via satellite to a small parabolic "dish" antenna located at the viewer's home. There are currently four companies licensed by the Commission to provide DBS service: DirectTV, EchoStar (marketed as the DISH Network), Dominion Video Satellite, Inc. (marketed as Sky Angel) and R/L DBS Company.<sup>183</sup> Of

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<sup>177</sup> Comcast Reply Comments at 8; *Most MSOs Still Waiting to Enter Residential Phone Market*, Comm. Daily, Sept. 20, 2000, at 5-6.

<sup>178</sup> Comcast Reply Comments at 9.

<sup>179</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2001 Financial Results for Cablevision NY Group and Rainbow Media Group* (press release), Aug. 9, 2001.

<sup>180</sup> *Id.*

<sup>181</sup> Charter Communications, Inc., *Charter Communications and High Speed Access Corp. Announce Trial of True IP Switched Local Voice Service Over Cable* (press release), Dec. 14, 1999.

<sup>182</sup> Bruce Roberts and Stephen DeLucia, *Cable Telephony*, Dresdner, Kleinwort, and Wasserstein, May 21, 2001, at 1; Dennis Leibowitz, Reed Kenyon, and Ryan Pappas, *MediaWeek*, Credit Suisse First Boston, Aug. 6, 2001, at 3 and 5.

<sup>183</sup> R/L DBS Company, L.L.C. is a joint venture of Rainbow Media Holdings, Inc., the programming subsidiary of Cablevision Systems Corporation, and Loral SpaceCom DBS Holdings Inc. R/L DBS holds a permit to construct a DBS system but has not launched a satellite or begun service. In August 1999, R/L DBS filed a petition requesting an extension of its build-out requirements in order to construct and launch a satellite for DBS service, 130 SAT-EXT-95. On December 28, 2000, the Commission granted a 36-month extension of time to R/L DBS. *See Petition*

(continued...)

these, DirecTV, EchoStar and Dominion currently provide service.<sup>184</sup> General Motors, which owns DirecTV through its Hughes Electronics subsidiary, agreed to spin-off Hughes from General Motors and to merge Hughes with EchoStar.<sup>185</sup> This transaction is pending before the Commission and the United States Department of Justice.<sup>186</sup>

56. At present, DBS is the largest competitor to cable in the MVPD market, and analysts predict continued growth. Paul Kagan Associates predicts that total DBS subscribership will increase to almost 26 million in 2005 and to over 28 million in 2010, a compound annual growth rate of 7.1 percent.<sup>187</sup> Kagan also predicts that total DBS industry revenue will triple from \$8.8 billion in 2000 to nearly \$26 billion in 2010.<sup>188</sup>

57. **Subscribership.** DBS is the principal subscription competitor to cable television service with 16,070,000 subscribers as of June 30, 2001, a gain of over three million subscribers, and an increase of over 19 percent since June 2000.<sup>189</sup> DBS's share of MVPD households has grown to over 18 percent nationally.<sup>190</sup> It is estimated that total DBS industry revenue for 2001 will total \$12.1 billion, a 37.5 percent increase over 2000.<sup>191</sup> DirecTV, which reported revenues of \$2.7 billion for the first six months of 2001,<sup>192</sup> is the nation's leading DBS service and the third largest distributor of multichannel video

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*of R/L DBS Company, L.L.C. For Extension of its Direct Broadcast Satellite Construction Permit*, Memorandum Opinion and Order, 16 FCC Rcd 9, 10-11 (2001).

<sup>184</sup> Dominion was originally issued its DBS construction permit in 1982. On May 17, 1999, the Commission granted Dominion Video Satellite, Inc. authority to commence operation of a DBS service using an EchoStar satellite currently in orbit. *See Dominion Video Satellite, Inc. Application for Minor Modification of Authority to Construct and Launch and to Continue Construction and Launch of Planned Satellite at 61.5° W.L.* File No. 12-SAT-ML-97, IBFS File No. SAT-MOD-19961108-00132; *Application for Additional Time to Construct and Launch Direct Broadcast Satellites*, File No. 13-SAT-MP/ML-97, IBFS File No. SAT-MOD-19961108-00133; *Application for Launch Authority*, File No. 108-SAT-LA-97, IBFS File No. SAT- L/A-19970814-00074, Order and Authorization, 14 FCC Rcd 8182 (1999). *See also* <http://www.skyangel.com>. Dominion does not operate its own satellite, and offers only 19 video channels, as opposed to hundreds for DirecTV and EchoStar. Dominion expects to launch its own satellite sometime in 2003.

<sup>185</sup> General Motors, *GM's Hughes Electronics To Merge With EchoStar Communications* (press release), Oct. 29, 2001.

<sup>186</sup> *See EchoStar Communications Corporation, General Motors Corporation, Hughes Electronics Corporation, Transferors, and EchoStar Communications Corporation, Transferee*, Consolidated Application for Authority to Transfer Control, Dec. 3, 2001. *See also EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation Seek FCC Consent for a Proposed Transfer of Control*, CS Docket No. 01-348, Public Notice, DA 01-3005 (rel. Dec. 21, 2001).

<sup>187</sup> Paul Kagan Assocs., Inc., *The State of DBS 2001* ("DBS Databook"), Dec. 2000, at 5.

<sup>188</sup> *Id.* at 6. Kagan predicts that interactive television services and advertising will be a major factor in this growth.

<sup>189</sup> App. C, Tbl. C-1. *See also* SBCA Comments at 4, Table 1. Current subscriber numbers from SkyREPORT at [http://www.skyreport.com/skyreport.com/dth\\_us.htm](http://www.skyreport.com/skyreport.com/dth_us.htm).

<sup>190</sup> NCTA Comments at 7. One study estimates that two million households subscribe to both DBS and cable. *See* Centris, *Digital Cable Subscribers Order 4x as Many PPV Movies and 2x as Many PPV Events as Analog Households; 50% More Events than DBS Households* (press release), Mar. 20, 2001.

<sup>191</sup> DBS Databook at 6.

<sup>192</sup> DirecTV Comments at 11.

programming.<sup>193</sup> DirecTV had over 10 million subscribers as of June 2001, an increase of almost 15 percent from the 8.7 million customers reported as of June 2000.<sup>194</sup> As of June 2001, EchoStar reported a 40 percent increase in subscribers, from 4.3 million in June 2000 to more than 6 million subscribers as of June 2001.<sup>195</sup> EchoStar is now the sixth largest MVPD in the United States.<sup>196</sup> Dominion, under the brand name Sky Angel, is a self-described Christian and family oriented DBS service. Sky Angel offers 19 video and 16 radio channels for \$9 a month.<sup>197</sup> Although Dominion's transponders are currently located on an EchoStar satellite, Sky Angel subscribers must use a separate antenna to receive DISH Network programming.<sup>198</sup>

58. SBCA, the national trade organization of the satellite television industry, states that DBS is gaining over 8,500 subscribers per day.<sup>199</sup> Penetration by state varies from a low of less than two percent<sup>200</sup> to a high of more than 40 percent.<sup>201</sup> Forty-five states now have penetration of more than 10 percent, as compared to the 44 states reported in 2000; 30 states have more than 20 percent penetration, compared to 24 states in 2000; and five states have more than 30 percent DTH penetration.<sup>202</sup> According to DirecTV, its subscribers are distributed across the continental United States with approximately 50 percent residing in urban counties and 50 percent living in smaller, rural counties.<sup>203</sup> As compared to cable subscribers, DirecTV subscribers are more likely to live in rural areas and are more likely to live in single-family homes.<sup>204</sup>

59. *Availability of Local Broadcast Stations.* DirecTV states that the ability to offer local broadcast stations continues to be a significant factor in DBS subscriber growth. DirecTV reports that its overall subscriber levels have increased by 20 percent due to local broadcast channel service, and that 47 percent of its customers to whom it is available take a local channel package.<sup>205</sup> As of August 2001, DirecTV offers for \$5.99 the local affiliates of ABC, CBS, NBC, and FOX in 41 markets, and a national

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<sup>193</sup> NCTA Comments at 7-8.

<sup>194</sup> DirecTV Comments at 11.

<sup>195</sup> EchoStar Comments at 1.

<sup>196</sup> NCTA Comments at 8.

<sup>197</sup> <http://www.skyangel.com/HTML%20Site/Body%20Pages/FAQ/faq.htm>.

<sup>198</sup> *Id.*

<sup>199</sup> SBCA Comments at 5, Table 3.

<sup>200</sup> Penetration is less than two percent in Hawaii. The State of Hawaii states that DirecTV service began in September 2000, but that this service is limited and is not comparable to those offered on the mainland. EchoStar service is closer to mainland service, but subscription to its popular "Top 150" service requires two dishes, raising equipment costs. Hawaii Comments at 4-8.

<sup>201</sup> SBCA Comments at 3-4 and App. A.

<sup>202</sup> *Id.* at 4 and App. A.

<sup>203</sup> DirecTV Comments at 13.

<sup>204</sup> *Id.* at 11-12. DirecTV attributes the higher single-family home statistic to "...anti-competitive 'evergreen' and exclusive service contracts between cable operators and multiple dwelling unit ('MDU') owners and other barriers to MDU entry."

<sup>205</sup> *Id.* at 12-13.

PBS feed with every local station package.<sup>206</sup> DirecTV indicates that it will offer all required local broadcast stations in these markets on January 1, 2002.<sup>207</sup> Similarly, EchoStar transmits a local network package to its subscribers in 35 markets for \$4.99 and offers the national PBS feed as an option for one dollar extra.<sup>208</sup> Another company, Local TV on Satellite (“LTVS”), proposes to offer all 1,600 full-power local broadcast stations to DBS subscribers, first via leased transponders with low bit rates, but eventually with spot beams at high bit rates.<sup>209</sup>

60. This year, in its implementation of the Satellite Home Viewer Improvement Act (“SHVIA”), the Commission reaffirmed and clarified its prior rulemakings in two *Orders on Reconsideration*, dealing with issues in relation to mandatory carriage of broadcast signals (“must carry”) and retransmission consent.<sup>210</sup> The satellite industry challenged the SHVIA must-carry provisions.<sup>211</sup> On December 7, 2001, the United States Court of Appeals for the Fourth Circuit denied the petitions for review and affirmed the United States District Court for the Eastern District of Virginia’s opinion.<sup>212</sup> In addition, the Commission has resolved 20 must-carry complaints filed against DBS operators, with an addition 21 cases currently pending.

61. **Program Access.** The Commission has undertaken a proceeding to determine whether the exclusivity provisions of the program access regulations should be allowed to sunset on October 5, 2002.<sup>213</sup> SBCA believes that the exclusivity provisions should be extended. SBCA states that, if the prohibition of exclusive contracts is not extended, it will harm DBS operators’ ability to continue to compete effectively with cable operators.<sup>214</sup> SBCA further states that the program access rules should be

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<sup>206</sup> *Id.* See also <http://www.skyreport.com/skyreport/local.htm>.

<sup>207</sup> DirecTV Comments at 12-13. See also *Implementation of the Satellite Home Viewer Improvement Act 1999: Broadcast Signal Carriage Issues, Retransmission Consent Issues*, CS Docket Nos. 00-96 and 00-363, Report and Order, 16 FCC Rcd 1918 (2000).

<sup>208</sup> See <http://www.skyreport.com/skyreport/local.htm>.

<sup>209</sup> *LTVS Plans To Fill Void Left By DBS Operators*, Comm. Daily, Aug. 29, 2001, at 3.

<sup>210</sup> *Implementation of the Satellite Home Viewer Improvement Act 1999: Broadcast Signal Carriage Issues*, CS Docket No. 00-96, Order on Reconsideration, 16 FCC Rcd 16544 (2001); *Implementation of the Satellite Home Viewer Improvement Act of 1999: Retransmission Consent Issues: Good Faith Negotiation and Exclusivity*, CS Docket No. 99-363, Order on Reconsideration, 16 FCC Rcd 15599 (2001).

<sup>211</sup> DirecTV, EchoStar, SBCA v. FCC & USA, No. 01-1151 (Fourth Circuit). SHVIA provides DBS carriers with the opportunity to carry local stations in a Designated Market Area (“DMA”) pursuant to a statutory copyright license similar to the one provided cable operators. If DBS carriers elect this option in a DMA, however, they must carry all the local stations in the DMA, effective January 1, 2002. In this consolidated case, the satellite carriers sought review of the Commission’s Order implementing the statute. They also appealed a June 19, 2001, judgment of the United States District Court for the Eastern District of Virginia, which granted the government’s motion to dismiss their complaint challenging the SHVIA.

<sup>212</sup> See *Satellite Broadcasting and Communications Association v. FCC*, No. 01-1151 *et al.* (4<sup>th</sup> Cir. 2001).

<sup>213</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*, CS Docket No. 01-290, Notice of Proposed Rulemaking (“*Program Access NPRM*”), 16 FCC Rcd 19074 (2001). See also ¶¶ 162-170 *infra*.

<sup>214</sup> SBCA Comments at 8-9. See also DirecTV Comments at 9-10; EchoStar Comments at 13; NRTC Comments at 18-21, and Reply Comments at 3.

extended to cover all vertically integrated programming, regardless of how it is delivered.<sup>215</sup> NCTA, in its comments, on the other hand, states that DBS is firmly entrenched as a competitor to cable,<sup>216</sup> and that DBS is constraining cable prices.<sup>217</sup> Given the changes in the MVPD marketplace, NCTA believes that the program access limitations on exclusivity should sunset.<sup>218</sup>

**62. Broadband Satellite Services.** Both DirecTV and EchoStar now offer two-way Internet access services to their subscribers.<sup>219</sup> DirecTV offers the service under the brand name DirecPC, and consumers can receive video and high-speed Internet access through one satellite dish, the DirecDUO.<sup>220</sup> EchoStar offers a similar service, called Starband, in cooperation with a subsidiary of Gilat.<sup>221</sup> These services are available in areas where other high-speed options are not, but analysts question whether higher monthly fees and equipment costs will limit satellite high-speed data's competitiveness with cable and DSL.<sup>222</sup>

**63. High-Definition Television.** DirecTV and EchoStar provide subscribers with high-definition television ("HDTV") programming. This year, DirecTV premiered HDNet, an HDTV channel that will show Major League Baseball games, National Hockey League games, qualifying events for the 2002 Winter Olympic games, and other non-sports entertainment programming.<sup>223</sup> DirecTV also carries Home Box Office ("HBO") and select pay-per-view movies in HDTV format.<sup>224</sup> EchoStar carries HBO, Showtime, CBS, and select pay-per-view movies in HDTV format.<sup>225</sup>

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<sup>215</sup> SBCA Comments at 9. *See also* DirecTV Comments at 8-10; EchoStar Comments at 1-4 and 9-14. EchoStar also indicates that the Commission has not enforced its existing program access regulations with sufficient vigor. In opposition to EchoStar's position, *see* NCTA Reply Comments at 8-11.

<sup>216</sup> NCTA Comments at 6-13.

<sup>217</sup> *Id.* at 13-17.

<sup>218</sup> *Id.* at 36-39.

<sup>219</sup> SBCA Comments at 5-6.

<sup>220</sup> *See* <http://www.direcpc.com>. DirecTV also continues to offer its one-way high-speed access service, with a telephone line return path.

<sup>221</sup> KaganBroadband, *EchoStar Adds HSD, Promotes New Boxes*, Jan. 8, 2001, at 1. EchoStar has increased its ownership interest in Starband, and will take a majority interest next year. *EchoStar Begins Takeover of Starband*, Comm. Daily, July 12, 2001, at 3.

<sup>222</sup> *See, e.g., Satellite Internet Challenges Include Improving Business Models*, Comm. Daily, May 15, 2001, at 3, and Yuki Noguchi, *Slow to Take Off: Internet Service Via Satellite Remains an Expensive Choice*, Washington Post, Aug. 8, 2001, at E1.

<sup>223</sup> Monica Hogan, *DirecTV Readies HDTV Sports Net*, Multichannel News, Sept. 4, 2001.

<sup>224</sup> *Id.* To receive DirecTV's HDTV service, subscribers must purchase either an HDTV set with a built-in DirecTV receiver, or a separate decoder box, and a second satellite dish that is capable of receiving the signals. *See* <http://www.direcTV.com:80/yourService/yourServicePages/0,1125,384,00.html>.

<sup>225</sup> Monica Hogan, *DirecTV Readies HDTV Sports Net*, Multichannel News, Sept. 4, 2001. To receive EchoStar's HDTV service, subscribers must purchase a second dish, use a certain kind of decoder box, and pay an extra fee of \$5.99 per month. *See* <http://www.dishnetwork.com/content/programming/locals/cbshd/index.shtml> and <http://www.dishnetwork.com/ppv/features/hdtv/hdtv.html>.



64. **Terrestrial Reuse of DBS Spectrum.** We previously reported on Northpoint Technologies, Inc.'s proposal to reuse DBS spectrum for a terrestrial service that the Commission has termed Multichannel Video Distribution & Data Services ("MVDDS").<sup>226</sup> The Commission determined that it is technically feasible for MVDDS and DBS to share spectrum and that such sharing can be accomplished under an already existing fixed allocation in the 12.2-12.7 GHz band.<sup>227</sup> This allocation requires that MVDDS not cause harmful interference to incumbent DBS services.<sup>228</sup> The Commission also adopted a *Further Notice of Proposed Rulemaking* seeking comment on technical and service rules for licensing the new services.<sup>229</sup> On April 18, 2001, Mitre Corporation delivered to the Commission a Report titled, "Analysis of Potential MVDDS Interference to DBS in the 12.2-12.7 GHz Band."<sup>230</sup> The Mitre Report indicates that sharing of the 12 GHz band is feasible and provides suggested mechanisms to mitigate potential interference to DBS operations.<sup>231</sup> A separate company, MDS America, has also proposed reusing these frequencies, and has conducted tests it claims show no interference.<sup>232</sup> A third company, PDC Broadband Corporation has also filed for permission to reuse this band for terrestrial services.<sup>233</sup>

65. Northpoint states that the Mitre Report indicates that sharing of the DBS spectrum is feasible, and that the report only points to the threat of interference under certain circumstances.<sup>234</sup> Northpoint states that it will provide more effective competition to cable than DBS by offering local broadcast stations in every market, and by quickly achieving economies of scale and scope.<sup>235</sup> Northpoint believes

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<sup>226</sup> See 2000 Report, 16 FCC Rcd at 6043.

<sup>227</sup> Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency With GSO and Terrestrial Systems in the Ku-Band Frequency Band; Amendment of the Commission's Rules to Authorize Subsidiary Terrestrial Use of the 12.2-12.7 GHz Band by Direct Broadcast Licensees and Their Affiliates; and Applications of Broadwave USA, PDC Broadband Corporation, and Satellite Receivers, Ltd., to Provide A Fixed Service in the 12.2-12.7 GHz Band, ET Docket No. 98-206, RM-9147, RM-92-45, First Report and Order and Further Notice of Proposed Rulemaking ("New Fixed Satellite Services Order"), 16 FCC Rcd 4096 (2001).

<sup>228</sup> See 47 C.F.R. § 2.106, fn. S5.490.

<sup>229</sup> See *New Fixed Satellite Services Order*, n. 227 *supra*.

<sup>230</sup> The Mitre Corporation report was conducted pursuant to Section 1012, Prevention of Interference to Direct Broadcast Satellite Services, of the Commerce, Justice, State and Judiciary Appropriations Act, (CJSJA Act), H.R. 5548 (enacted on December 21, 2000, as part of Pub. L. 106-553). FCC, *Comments Requested on The Mitre Corporation Report on Technical Analysis of Potential Harmful Interference to DBS from Proposed Terrestrial Services in the 12.2 – 12.7 GHz Band (ET Docket 98-206)*, Press Release (Apr. 23, 2001). In this Press Release, the Commission requested, and subsequently received, comments on the report.

<sup>231</sup> Mitre Corporation, *Analysis of Potential MVDDS Interference to DBS in the 12.2-12.7 GHz Band*, Apr. 18, 2001, at 6.1-6.2.

<sup>232</sup> *MDS America Says Test Show It Can Share Ku-Band Without DBS Interference*, TR Daily, Oct. 12, 2001.

<sup>233</sup> *New Fixed Satellite Services Order*, 16 FCC Rcd at 4196-7. Satellite Receivers, Ltd. also filed an application for authority to provide terrestrial services in this band in Illinois, Indiana, Iowa, Michigan, Minnesota and Wisconsin.

<sup>234</sup> Northpoint Comments at 3-6.

<sup>235</sup> *Id.* at 6-8. Northpoint states that DBS industry suggestions to move MVDDS service to other spectrum bands would reduce its effectiveness as a competitor.

that the Commission should grant its license application to provide this service without competitive bidding.<sup>236</sup>

66. SBCA counters that interference harmful to DBS services is inherent to MVDDS design, and that the mitigation techniques suggested in the Mitre Report are “untested, expensive, and burdensome, and will not be able to eliminate all interference.”<sup>237</sup> SBCA proposes a solution, allowing MVDDS services in higher frequency bands already allocated for point-to-multipoint video and data services.<sup>238</sup> EchoStar and DirecTV also oppose MVDDS reuse of DBS spectrum, stating that this reuse would degrade and decrease reliability of DBS services and thus adversely affect DBS subscribership.<sup>239</sup> NRTC also raises concerns about MVDDS interference with DBS service.<sup>240</sup>

## 2. Home Satellite Dishes

67. The home satellite dish (“HSD”) or C-band segment of the satellite industry continues to experience a decline in subscribership. Between June 2000 and June 2001, C-band subscribers fell from 1,476,717 to 1,000,074, an average loss of 1,306 subscribers per day.<sup>241</sup> SBCA states, however, that “C-band remains the delivery vehicle for a core contingent of satellite subscribers,”<sup>242</sup> and “that satellite programmers remain committed to offering programming to this sector of the industry.”<sup>243</sup> There are now four remaining C-Band programming distributors, Gemstar-TV Guide Superstar/Netlink Group, DSI Distributing, Satellite Receivers, Ltd., and the NRTC.<sup>244</sup>

### C. Multichannel Multipoint Distribution Service

68. Multipoint and multichannel multipoint distribution service (“MDS” and “MMDS”) and instructional television fixed service (“ITFS”) share spectrum in the 2.5-2.69 GHz band. In addition, MDS entities license spectrum in the 2.15-2.162 GHz band, primarily for upstream communications to hub receiving facilities in two-way data communications systems. Traditionally, MDS spectrum has been used to deliver multichannel video programming (known as wireless cable service) to residential customers.<sup>245</sup>

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<sup>236</sup> *Id.* at 8-9.

<sup>237</sup> SBCA Comments at 10-13.

<sup>238</sup> *Id.* at 14.

<sup>239</sup> EchoStar Comments at 14-15; DirecTV Comments at 5-6.

<sup>240</sup> NRTC Comments at 17-18; Reply Comments at 5. NRTC requests that the Commission accept competing applications and conduct an auction to provide the service.

<sup>241</sup> SBCA Comments at 4-5, Tables 1 and 3.

<sup>242</sup> For instance, Gregory C. Jones and John Dowie, C-Band subscribers, filed comments in this proceeding, urging the Commission to enact policies to aid C-Band’s continued presence as a competitor to cable and a provider of technology to rural America. *See* Dowie Comments and Jones Reply Comments.

<sup>243</sup> SBCA Comments at 3.

<sup>244</sup> Satellite Business News, Inc., *Satellite Receivers Buys Disney’s C-Band Subscribers*, Satellite Business News FAXUpdate, June 15, 2001.

<sup>245</sup> *See 2000 Report*, 16 FCC Rcd at 6045.

69. In 1998, the Commission released the *Two-Way Order* permitting MDS/ITFS licensees to construct digital two-way systems that could provide high-speed, high-capacity broadband service, including two-way Internet service via cellularized communication systems.<sup>246</sup> In the wake of the *Two-Way Order*, WorldCom and Sprint each invested over \$2 billion in acquiring MDS licensees and at least another \$1 billion each in system construction. An initial filing window for two-way service was held in August 2000. Following this initial filing window, on April 16, 2001, the Mass Media Bureau commenced a rolling one-day filing window process, which permits licensees to apply for authorizations on a first-come first-served basis.<sup>247</sup> To date, approximately 1,600 of those applications have been granted.

70. On January 5, 2000, the Commission issued a *Notice of Proposed Rulemaking* that examined spectrum options for third-generation wireless service ("3G") and other advanced wireless services. Although many different spectrum bands were discussed in that proceeding, the Commission sought comment on whether to provide mobile services in the 2.5-2.69 GHz, which is occupied by MDS and ITFS licenses.<sup>248</sup> On September 6, 2001, the Commission adopted a *First Report and Order and Memorandum Opinion and Order* ("*First R&O/MO&O*") in the New Advanced Wireless Services proceeding.<sup>249</sup> *The First R&O* adds a mobile allocation to the 2.5-2.69 GHz band to provide additional near-term and long-term flexibility for use of this spectrum, thereby making this band potentially available for advanced mobile and fixed terrestrial wireless services, including 3G and future generations of wireless systems. The Commission decided not to relocate the existing licensees or otherwise modify their licenses. In addition, the Commission recognized that it will have to explore the service rules that would apply to permit mobile operations in the 2.5-2.69 GHz band in a separate future proceeding.

71. ***MDS Households and Subscribership.*** As reported last year, the potential number of homes with a serviceable line-of-sight to an MMDS operator's transmission facilities was about 62 million and the number of homes actually capable of receiving an MMDS signal ("homes seen") was about 36 million.<sup>250</sup> The number of MMDS subscribers, however, continues to hover around 700,000.<sup>251</sup> MMDS

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<sup>246</sup> *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, MM Docket No. 97-217, Report and Order, 13 FCC Rcd. 19112 (1998), *recon.*, 14 FCC Rcd 12764 (1999), *further recon.*, 15 FCC Rcd 14566 (2000).

<sup>247</sup> *Mass Media Bureau Provides Further Information Regarding Grants Of ITFS And MDS Two-Way Applications; Certain ITFS Major Modification Applications; And The Rolling One-Day Filing Window Procedure*, Public Notice, DA 01-751 (rel. Mar. 26, 2001).

<sup>248</sup> *See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems*, ET Docket No. 00-258, Notice of Proposed Rule Making and Order, 16 FCC Rcd 596 (2000).

<sup>249</sup> *See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems*, ET Docket No. 00-258, First Report and Order and Memorandum Opinion and Order, 16 FCC Rcd 17222 (2001).

<sup>250</sup> *See 2000 Report*, 16 FCC Rcd at 6046. The number of homes with a "serviceable line of sight" counts all homes which an MMDS operator is licensed to serve within a particular license area, regardless of technical limitations such as signal strength or blockage by terrain. The number of "homes seen," on the other hand, is the number of homes that MMDS operators have the technical ability to serve. *See 1997 Report*, 13 FCC Rcd at 1081.

<sup>251</sup> NCTA, *Cable & Telecommunications Industry Overview 2001*, Cable Television Developments 2001, at 11.

providers, such as WorldCom and Nucentrix,<sup>252</sup> have continued to roll out high-speed Internet access in new markets, many of them rural. However, Sprint, which introduced its video, voice, and data service to consumers and businesses in 1998, recently announced that it will terminate this service.<sup>253</sup> Pursuant to its independent spectrum management responsibilities, the Commission recently undertook a study of the 2500-2690 MHz band. An Interim Report regarding this band was issued in November 2000,<sup>254</sup> and a Final Report was issued in March 2001.<sup>255</sup> The following information regarding the rollout of two-way services by MDS providers was set forth in the studies: Sprint has acquired interests in more than 90 markets covering about 30 million households. WorldCom holds MDS licenses covering over 31 million households in 78 markets. Nucentrix Broadband Services, Inc. currently offers two-way high-speed Internet access service in Austin and Sherman-Denison, Texas, and is conducting a trial of the service in Amarillo, Texas. At least 24 other companies offer fixed wireless services in approximately 33 different counties. Generally, MDS providers are focusing on data transmission rather than video service.

72. **Barriers to Competition.** Section 628(c)(2)(D) of the Communications Act generally prohibits exclusive contracts between, *inter alia*, vertically integrated satellite cable programming vendors and cable operators. WCA states that preservation of this statutory prohibition is of critical importance to fixed wireless providers of multichannel video programming.<sup>256</sup> WCA further contends that the conditions that prompted the adoption of program access rules are worse than they were in 1992. Where cable programmers once had opportunities to sell their programming to multiple cable operators in a local market, in many cases there is now a single cable operator that has consolidated previously independent systems. According to WCA, this exposes MDS/ITFS providers and other terrestrial competitors to a risk that vertically integrated programmers will refuse to sell their programming to alternative MVPDs that do not serve a “critical mass” of subscribers.<sup>257</sup> WCA also claims that cable programmers have already withheld programming from competitors due in part to the Commission’s liberal interpretation of the terrestrial distribution requirement.<sup>258</sup>

#### D. Satellite Master Antenna Television Systems

73. SMATV systems, also known as private cable operators or private communication operators, are video distribution facilities that use closed transmission paths without using any public right-of-

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<sup>252</sup> Nucentrix reports that it operates the largest wireless cable company, Heartland Cable Television, Inc., which provides 33 channels of video programming to subscribers in 57 markets. See Nucentrix Broadband Networks at <http://www.nucentrix.com>.

<sup>253</sup> Sprint, *Sprint to Terminate ION Efforts; Announces Additional Actions to Improve Competitive Positioning and Reduce Operating Costs in FON Group* (press release), Oct. 17, 2001, at [http://www3.sprint.com/PR/CDA/PR\\_CDA\\_Press\\_Releases\\_Detail/1,1579,3921,00.html](http://www3.sprint.com/PR/CDA/PR_CDA_Press_Releases_Detail/1,1579,3921,00.html); Sprint, *Sprint History* at <http://www.sprint.com/sprint/ir/sd/sh.html>.

<sup>254</sup> See FCC Staff Report, *Spectrum Study of the 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems*, ET Docket No. 00-232, Interim Report, 15 FCC Rcd 22310 (2000).

<sup>255</sup> See FCC Staff Report, *Spectrum Study of the 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems*, ET Docket No. 00-258, Final Report, 16 FCC Rcd 10272 (2001).

<sup>256</sup> WCA Comments at 1-2. See *Program Access NPRM*, n. 213 *supra*.

<sup>257</sup> WCA Comments at 3-4.

<sup>258</sup> *Id.* at 4-5.

way.<sup>259</sup> SMATV systems usually are satellite-based and distribute television signals to urban and suburban multiple dwelling units (“MDUs”) as well as commercial multiple tenant units (“MTUs”).<sup>260</sup> SMATV providers receive and process satellite signals directly at an MDU or other private property with an on-site headend facility consisting of receivers, processors and modulators. Programming is distributed to individual units through an internal hard-wire system in the building.

74. SMATV operators are subject to less regulatory oversight than traditional cable systems. For example, they are not required to obtain cable television franchises, nor do they face regulatory constraints on the geographic areas in which they may offer video services.<sup>261</sup> Some SMATV systems use microwave transmissions and wires to serve multiple buildings that are not commonly owned.<sup>262</sup> On July 13, 1999, the Commission adopted a *Notice of Proposed Rulemaking* seeking comment on a proposal to allow SMATV operators to use Cable Television Relay Service (“CARS”) 12 GHz band channels to deliver video programming.<sup>263</sup> Because SMATV systems do not use public rights-of-way, and are technically not cable operators, they have been ineligible for CARS licenses.<sup>264</sup> In addition, the Commission sought comment on whether the CARS band should be expanded to include the frequency band segment from 13.20-13.25 GHz, currently designated for television broadcast auxiliary service. This proceeding is pending.

75. SMATV operators consist of hundreds of small and medium size firms throughout the nation.<sup>265</sup> Most SMATV operators serve approximately 3,000-4,000 customers, but the larger ones serve

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<sup>259</sup> 47 U.S.C. § 522(7).

<sup>260</sup> The MDU market is comprised of an estimated 20-25 million units. Mor Allon, *Who Should be in the Driver's Seat in Delivering Broadband Services: Business or Technology?*, Private & Wireless Broadband, August/September 2001, at 32.

<sup>261</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.

<sup>262</sup> *Id.* at 1085. The Commission held in 1991 that microwave transmissions do not “use” public rights-of-way and made 18 GHz technology available for the point-to-point delivery of video programming services, allowing operators to free themselves from large networks of coaxial or fiber optic cable and amplifiers. *Amendment of Part 94 of the Commission's Rules to Permit Private Video Distribution Systems of Video Entertainment Access to the 18 GHz Band*, PR Docket No. 90-5, Report and Order, 6 FCC Rcd 1270, 1271 (1991). In addition, on June 22, 2000, the Commission adopted a *Report and Order* affirming the allocation of the 18 GHz band for SMATV providers, concluding that “private cable operators using the 18 GHz band, for both current and future operations, will not be able to compete effectively against franchised cable operators if we redesignate the 18.3-18.55 GHz band....” See *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, IB Docket No. 98-172, Report and Order (“18 GHz Report and Order”), 15 FCC Rcd 13430, 13450 (2000).

<sup>263</sup> *1999 Report*, 15 FCC Rcd at 1023; *Petition for Rulemaking To Amend Eligibility Requirements in Part 78 Regarding 12 GHz Cable Television Relay Service*, CS Docket No. 99-250, Notice of Proposed Rulemaking, 14 FCC Rcd 11967 (1999).

<sup>264</sup> 47 C.F.R. § 78.13.

<sup>265</sup> For a list of self-described private communications operators, see the Web site of the Independent Multi-Family Communications Council (IMCC), Private Communication Operator (PCO) Members at <http://www.imcc-online.org/membership>.

15,000-55,000 subscribers each.<sup>266</sup> As of July 2001, SMATV subscribership remained unchanged from last year at 1.5 million subscribers.<sup>267</sup>

76. In terms of service offerings, private cable operators generally offer the same basic service tiers that are offered by franchised cable operators.<sup>268</sup> We have previously reported that SMATV operators are joining with satellite providers to combine analog antenna and DBS systems in order to increase service offerings and this trend continues.<sup>269</sup> Some private cable operators are upgrading their systems with digital technology that allows the operator to provide service packages of up to 200 channels over their analog infrastructure, plus pay per view and digital music channels.<sup>270</sup> Private cable operators also are developing suites of service offerings to satisfy the increasing demand among MDU owners for broadband services beyond digital video service or DBS programming services.<sup>271</sup> For example, they are seeking service suites that include one or more of the following: high-speed Internet access, community portals, interactive programming guides and localized video information.<sup>272</sup>

77. **Barriers to Competition:** Private cable operators' ability to compete with other MVPDs is based, in part, on the degree of access they have to the MDU marketplace. Ongoing issues confronting private cable operators include exclusive and/or perpetual contracts between MDUs and other MVPDs. The Commission has issued a *Second Further Notice of Proposed Rulemaking* seeking comments, among other things, on the advantages or disadvantages of exclusive contracts in promoting a competitive environment, and whether there are circumstances in which the Commission should adopt restrictions on

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<sup>266</sup> 1999 Report, 15 FCC Rcd at 1023. See also *Ten Largest Private Cable Operators/Multiple System Operators*, Private Cable & Wireless Cable, Dec. 1999, at 4.

<sup>267</sup> NCTA Comments at 7.

<sup>268</sup> One source indicates that the average private cable operator offering SMATV video service usually delivers about 30-45 channels. See Mor Allon, *How the PCO Can Improve the Bottom Line Providing Bundled Services to MDUs*, Private & Wireless Broadband, June 2000, at 16. In 1999, we reported that the number of channels being offered by SMATV operators responding to an industry poll was approximately 89 channels, with a low of 50 channels and a high of 200 channels offered. 1999 Report, 15 FCC Rcd at 1024. This figure is derived from the reports of 18 operators, and likely includes SMATV operators that offer video over a combined SMATV/DBS system.

<sup>269</sup> 1999 Report, 15 FCC Rcd at 1024-25; 2000 Report, 16 FCC Rcd at 6048-9. See, e.g., *MDTV to Provide DIRECTV and High-Speed Internet Access to Ginsburg Development Companies' Property*, Private & Wireless Broadband, June/July 2001, at 52.

<sup>270</sup> Doug Trukenmiller, *QAM: Your Secret Weapon for a Competitive Television Solution*, Private & Wireless Broadband, August/September 2001, at 52.

<sup>271</sup> According to one analysis, sales of broadband equipment and services tailored to the MDU market will increase from \$370 million in 2000 to \$4.8 billion by 2004. Cahners In-Stat Group, *Broadband to the MTU Becoming More Mature: Market to Reach \$4.8 Billion by 2004* (press release), Jan. 10, 2001. See also *What Went Wrong: Broadband Delivery to the MDU*, Cahners In-Stat Group Information Alert Newsletter, Aug. 9, 2001.

<sup>272</sup> See, e.g., Amy Helland, *Bringing Broadband to Your Tenants: What Property Owners are Thinking and Doing*, Private & Wireless Broadband, August/September 2001, at 38-40; Mark Sherman, *Increase Your Cash Flow by Delivering Digital Service*, Private & Wireless Broadband, June/July 2001, at 26; Larry Kessler, *Experiencing A Revolution*, Private & Wireless Broadband, April/May 2001, at 10. See also *USOL Executes Agreement to Provide Cable and High-Speed Internet Services to Concord at McGallion Complex*, Private & Wireless Broadband, April/May 2001, at 48; *OnePath Networks and NWS Communications Collaborate on Delivery of Broadband Services to MDUs* (press release), July 16, 2001, at <http://www.onepathnet.com/newsevents/index.html>.

exclusive contracts in order to further promote competition in the MDU marketplace.<sup>273</sup> This proceeding is pending.

### E. Broadcast Television Service

78. Broadcast networks and stations are competitors to MVPDs particularly in the advertising and program acquisition markets. Broadcast networks also compete with MVPDs by supplying video programming over the air to those who do not subscribe to an MVPD service. Additionally, broadcast networks and stations are suppliers of content for distribution directly to consumers and to consumers through MVPDs. Since the *2000 Report*, the number of commercial and noncommercial television stations increased to 1,678 as of June 30, 2001, from 1,663 as of September 30, 2000.<sup>274</sup> Total television broadcast advertising revenues reached \$41 billion in 2000, a 12.2 percent increase over 1999.<sup>275</sup> Advertising revenues for the seven most widely circulated broadcast networks (ABC, CBS, Fox, NBC, PAX, UPN, and WB) alone reached \$20.2 billion in 2000.<sup>276</sup> In comparison, cable programming networks earned \$10.3 billion in advertising revenue in 2000, an increase of 24 percent over 1999.<sup>277</sup>

79. A Spring 2001 Home Technology Monitor Ownership Report prepared by Statistical Research, Inc. ("SRI"), indicated that there are approximately 46.5 million television sets in broadcast-only homes. An additional 34.5 million television sets in homes subscribing to an MVPD service remain unconnected to such service. Thus, 81 million, or approximately 30.3 percent of the 267 million sets in the U.S. receive broadcast signals over-the-air. This study estimates that 20.9 percent of all households are broadcast-only homes and over 41 percent of all homes have at least one broadcast-only set. Similarly, Nielsen estimates that 20.7 million, or 29.2 percent of all households are broadcast-only homes.<sup>278</sup> Moreover, the SRI study reports that approximately 33 percent of homes with incomes under \$30,000 are broadcast-only, compared to 10 percent of the households with incomes exceeding \$75,000.<sup>279</sup>

80. During the 2000-2001 television season, ABC, CBS, Fox, NBC, PAX, UPN and WB affiliates accounted for a combined average 57 percent share of prime time viewing among all television households, compared to 59 percent in the previous year.<sup>280</sup> For all-day (24-hour) viewing, programming

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<sup>273</sup> *Telecommunications Services Inside Wiring, Customer Premises Equipment, Implementation of the Consumer Protection and Competition Act of 1992: Cable Home Wiring*, CS Docket No. 95-184 and MM Docket No. 92-260, Report and Order and Second Further Notice of Proposed Rulemaking ("*Inside Wiring Order*"), 13 FCC Rcd 3659 (1998).

<sup>274</sup> Compare Federal Communications Commission, *Broadcast Station Totals as of September 30, 2000*, FCC News Release (Nov. 29, 2000) with Federal Communications Commission, *Broadcast Station Totals as of June 30, 2001* FCC News Release (July 13, 2001).

<sup>275</sup> Television Bureau of Advertising, *Local Broadcast TV Posts 12.2% Gain in 2000 Over 1999* (press release), Mar. 22, 2001.

<sup>276</sup> *Id.*

<sup>277</sup> NCTA, *Cable Advertising Revenue: 1984-2000 (In Millions)*, Cable Television Developments 2001, at 11.

<sup>278</sup> In addition, broadcast-only homes include a higher proportion of racial and ethnic minorities – 18 percent of white households, 24 percent of African-American households and 32 percent of Hispanic households. NAB Comments at 2-3.

<sup>279</sup> *Id.* at 3.

<sup>280</sup> Nielsen Media Research, *Viewing Sources – Primetime, 1984-85 to 2000-01*.

broadcast on all television stations (affiliates, independents and non-commercial stations) accounted for a combined 57 percent share of viewing in all TV households, also down from 59 percent last year. Non-premium cable networks and pay cable services achieved a combined 55 percent share of 24-hour viewing, up from 52 percent last year. Reported audience shares exceed 100 percent due to simultaneous multiple set viewing.<sup>281</sup>

81. We previously reported on consolidation in the broadcast industry and on “repurposing” of content. Repurposing of programming is becoming more common. We reported “repurposing” deals between NBC and PaxTV, and ABC with Lifetime and VH-1 in last year’s report.<sup>282</sup> This season, FX and Fox have also agreed to rebroadcast, on FX, two Fox series (*24* and *Nathan’s Choice*) in the same week as the initial showing on Fox.<sup>283</sup>

82. As we stated in previous reports, DTV could potentially enhance the ability of broadcasters to compete in the video marketplace. DTV allows broadcasters to transmit a very high quality signal (High Definition Television or HDTV), several standard definition signals (“multicasting”), or ancillary services in addition to broadcast signals. As of August 1, 2001, all but one of the network affiliates in the top ten television markets were broadcasting DTV service.<sup>284</sup> In television markets 11-30, 70 of 79 stations were broadcasting DTV service. Eighty-three percent of the more than 1,300 commercial television stations have been granted a DTV construction permit or license and 229 are on the air with DTV operation.<sup>285</sup> All commercial broadcasters are required to be on the air with DTV signals by May 2002.

83. Current use of DTV spectrum involves simultaneous broadcast of standard definition signals. For instance, ABC will be broadcasting its prime time dramas and comedies in HDTV this season. All of ABC’s scripted prime time shows will be available to viewers in HDTV, representing about 60 percent of the network’s weekly schedule. Reality programs, news shows and *Monday Night Football* (“*MNF*”) will not be aired in HDTV, although ABC intends to add *MNF* to the HDTV lineup as soon as next season. CBS is delivering its entire prime time lineup in HDTV in partnership with digital television set manufacturers Panasonic and Zenith. This is the third consecutive year that CBS has broadcast the majority of its prime time schedule in HD digital format.<sup>286</sup> NBC airs *Crossing Jordan* in prime time and *The Tonight Show With Jay Leno* in HDTV.<sup>287</sup> PBS will also broadcast two or three documentaries per month in HDTV.<sup>288</sup>

84. Since the *2000 Report*, there has been limited progress on broadcast-cable compatibility issues. A February 22, 2000, agreement between the NCTA and the CEA addressed two issues -

<sup>281</sup> Nielsen Media Research, *NTI Total Viewing Sources Reports, 1999-2001*.

<sup>282</sup> *2000 Report*, 16 FCC Rcd at 6051. “Repurposing” generally involves a re-run of broadcast content on a different network (cable or broadcast) shortly after it airs originally on network affiliate stations.

<sup>283</sup> Cahners, *FX, Fox Reach Repurposing Deal*, Multichannel News, July 30, 2001, at <http://www.tvinsite.com>.

<sup>284</sup> See *Summary of DTV Applications Filed and DTV Build Out Status* at <http://www.fcc.gov/mmb/vsd/files/dtvsum.html> for an updated list on the status of DTV broadcasts.

<sup>285</sup> *Id.*

<sup>286</sup> Cahners, *CBS Putting all of Prime in HD*, Broadcasting & Cable, Sept. 7, 2001, at <http://www.tvinsite.com>.

<sup>287</sup> See *Top of the Week, Digital Dossier*, Broadcasting & Cable, Oct. 8, 2001, at 20; Michael Grotticelli, *Nets Increase HDTV Output*, Broadcasting & Cable, Oct. 8, 2001, at 36-37.

<sup>288</sup> *Id.* at 36.



technical requirements for direct connection of digital television receivers to digital cable systems and provision of tuning and program schedule information to support the navigation function of DTV receivers, including on-screen program guides. This information is generally referred to as "PSIP" ("Program and System Information Protocol") information. With regard to the technical requirements for direct connection, the Society of Cable Telecommunications Engineers ("SCTE") completed adoption of the standard Digital Video Subcommittee (DVS)-313 on April 4, 2001. CEA has a parallel standard, Electronic Industry Association (EIA)/CEA-818-B, which is being revised to reflect the latest version of DVS-313. However, DVS-313 alone is not sufficient for building a device that will permit access to encrypted digital cable programming (and cable operators plan to encrypt most of their digital programming). To access encrypted programming requires a point of deployment ("POD") device. The February 22 agreement also set out a seven-step PSIP "Implementation Plan" designed to ensure that DTV receivers would be able to access certain PSIP information provided by program networks. The cable and consumer electronics industries differ on the amount of progress made on the implementation plan, with the CEA suggesting that there has been very little.<sup>289</sup>

85. The lack of a comprehensive copy protection regime has also slowed the DTV transition. There has been some progress on this front since last year, with two studios, Sony and Warner, signing copy protection technology licensing agreements with the "5C" companies.<sup>290</sup> However, various copy protection issues remain unresolved, including the degree of protection for broadcast programming and how to realize it. The *2000 Report* noted that the Commission had adopted DTV receiver labeling requirements in order to ensure that consumers will be fully informed about the capabilities of DTV receivers to operate with cable television systems.<sup>291</sup> Two reconsideration petitions are pending in that proceeding.

86. In addition, the Commission continues to consider mandatory carriage requirements of DTV broadcast signals by cable systems. On January 18, 2001, the Commission adopted a *First Report and Order and Further Notice of Proposed Rule Making* that tentatively rejected a dual carriage requirement for both a station's analog and digital signals. It also provided a framework for the private resolution of such signal carriage issues through retransmission consent agreements for commercial stations and through voluntary agreements in the case of noncommercial stations.<sup>292</sup> In the *First Report and Order*, among other things, the Commission clarified that a digital-only television station could assert carriage rights on local cable systems, afforded carriage rights to any station that returns its analog spectrum and converts to digital operations and resolved a number of other related issues. In the *Further Notice*, the Commission seeks additional comment on its tentative conclusion regarding a dual carriage requirement. Additionally, the *Further Notice* requests comment on the proper scope of the requirement to carry "program related" content in this context and the applicability of the rules adopted in the *First Report and Order* to satellite carriers under the SHVIA signal carriage provisions.

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<sup>289</sup> *Id.*

<sup>290</sup> The "5C" companies are Intel, Toshiba, Sony, Hitachi, and Matsushita. *See 1998 Report*, 13 FCC Rcd at 24347; *1999 Report*, 15 FCC Rcd at 1029.

<sup>291</sup> *See Compatibility Between Cable Systems And Consumer Electronic Equipment*, PP Docket No. 00-67, Report and Order, 15 FCC Rcd 17568 (2000).

<sup>292</sup> *See DTV Signal Carriage Proceeding*, n. 30 *supra*.

87. Although initial consumer acceptance of, and transition to, DTV has been slow, some assert that progress is being made.<sup>293</sup> As a result, broadcasters continue to engage in tests of various possible DTV products, such as HDTV, ancillary services, or some combination. It is, however, impossible to assess the competitive impact of DTV service on the MVPD market at this time, other than to observe that the potential for a positive competitive impact remains.

88. **Comments on Low-Power Competition.** In addition to the 1,304 commercial television stations the Commission licenses, the Commission also licenses lower-power television (“LPTV”) stations. There are currently over 2,300 licensed LPTV stations.<sup>294</sup> Several low power television stations claim that LPTV stations need must-carry status to survive.<sup>295</sup> WBGT-LP argues that the Commission should consider special must-carry provisions for competitors that can show reasonable evidence as to their desirability or consumer demand, similar to the significant viewing methodology.<sup>296</sup>

## F. Other Entrants

### 1. Internet Video

89. Since our last *Report*, the availability of real-time and downloadable video over the Internet (“Internet video”) has increased greatly.<sup>297</sup> The number of homes with access to the Internet and the number of home users accessing Internet video have also increased over the last year, as has the amount of available content. As of July 2001, an estimated 58 percent of all Americans had Internet access at home, compared with 52 percent as of July 2000.<sup>298</sup> Additionally, as of July 2001, 41 million residential Web users had accessed streaming video.<sup>299</sup> However, despite the evidence of continued interest in Internet video deployment and use, the medium still is not generally seen as a direct competitor to traditional video services.<sup>300</sup> As we reported last year, broadcast-quality Internet video service requires a

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<sup>293</sup> The Consumer Electronics Association reports the sale of DTV products is gaining momentum. Factory to dealer sales of DTV units were almost 650,000 units in 2000, and are projected to over 1.2 million units for 2001. See [http://www.ce.org/vision\\_magazine/editions/2001/mayjun/p04b.asp](http://www.ce.org/vision_magazine/editions/2001/mayjun/p04b.asp).

<sup>294</sup> See Federal Communications Commission, *Broadcast Station Totals as of June 30, 2001*, FCC News Release (July 13, 2001).

<sup>295</sup> Pursuant to 47 U.S.C. § 534(h), low power television stations qualify for must-carry status only in limited circumstances.

<sup>296</sup> WBGT-LP Comments at 2. See 47 C.F.R. § 76.54. See also WJAN-CA and WQBC-CA Comments.

<sup>297</sup> Internet video provided in real-time is also known as “streaming video.”

<sup>298</sup> Amanda Cantrell, *Growth of Internet Access Slows Dramatically in U.S.*, The Industry Standard, Aug. 14, 2001.

<sup>299</sup> Arbitron, Inc., *Arbitron/Edison Media Research Study Reveals Most “Streamies” First Accessed Webcasting within the Last Year* (press release), Sept. 5, 2001 (citing Nielsen// Net Ratings data).

<sup>300</sup> The Commission recently suggested that, given the nascent stage of the Internet video industry, it is premature to consider Internet video to be a full competitive alternative. *Amendment of Section 73.658(g) of The Commission’s Rules – The Dual Network Rule*, MM Docket No. 00-108, Report and Order, 16 FCC Rcd 11114, 11120 (2001). In addition, industry sources believe that Internet video still is substandard to broadcast quality and that hurdles remain to watching video on a computer screen. Robert La Franco, *The Serious Game: Digital Video is Still Off-track*, Red Herring Online, Aug. 22, 2001, at [http://www.redherring.com/ind...01&doc\\_id=170020017&rh\\_special\\_report\\_id=](http://www.redherring.com/ind...01&doc_id=170020017&rh_special_report_id=); Alan Goldstein, *Test Pattern: Yahoo Still Trying to Tune in Potential of Broadcast.com*, The Dallas Morning News Online, July 3, 2001, at [http://www.dallasnews.com/cgi-bin/...hology/409092\\_yahoo\\_03bus.AR.html](http://www.dallasnews.com/cgi-bin/...hology/409092_yahoo_03bus.AR.html); *Dot.Bomb Won’t Slow Streaming Media Growth, CERF Predicts*, Comm. Daily, Apr. 27, 2001, at 5-6; Chris Wallace, *Is*

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high-speed broadband connection of about 300 kbps or higher, which most current broadband providers cannot yet guarantee.<sup>301</sup> In addition, high-speed Internet subscribership still is limited, with only a few more than ten million subscribers.<sup>302</sup> Nevertheless, there have been a number of significant legal, business, and technological developments over the past year to report.

90. Last year we reported that some providers of Internet video were facing difficulties with U.S. copyright laws.<sup>303</sup> We reported that among others, Canadian-based JumpTV was seeking to stream U.S. television signals to Internet users in Canada.<sup>304</sup> Since our last *Report*, JumpTV applied for and then recently dropped its bid for copyright clearance to retransmit TV stations over the Internet.<sup>305</sup> JumpTV was seeking the right to pay copyright license fees, similar to cable, satellite or wireless firms, to stream Canadian and U.S. television signals over the Internet.<sup>306</sup>

91. This year, the most prominent webcasting conflict has been the contract dispute between Disney and Charter. In June 2001, the Walt Disney Company and Charter Communications engaged in a dispute over whether Disney had the right to stream its own ESPNNews over the Internet at the same time that Charter held distribution rights through license fees.<sup>307</sup> In June, Disney briefly revoked permission for Charter to carry ESPNNews.<sup>308</sup> In turn, Charter replaced ESPNNews in 250,000 homes with other programming.<sup>309</sup>

92. Despite these obstacles, Internet users continue to download and use software for accessing Internet video, and Web sites dedicated to streaming video continue to proliferate. For example, Nielsen//Net Ratings estimates that Microsoft's Windows Media Player, which recently overtook RealNetworks as the dominant software program for accessing Internet video, has over 24.7 million users.<sup>310</sup> It also

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*Streaming Video Dead?*, ZDNet, Mar. 19, 2001, at <http://www.zdnet.com/filters/printerfriendly/0,6061,2697806-2,00.html>; *Streaming Media Poised for Big Growth, Speakers Say*, Comm. Daily, June 21, 2001, at 5-6.

<sup>301</sup> See *2000 Report*, 16 FCC Rcd at 6054.

<sup>302</sup> See ¶ 44 *supra*. See also *Second Inquiry Concerning the Deployment of Advanced Telecommunications Capability Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, Second Report, 15 FCC Rcd 20913, 21053-7 (2000).

<sup>303</sup> See *2000 Report*, 16 FCC Rcd at 6055-6.

<sup>304</sup> *Id.* at 6056.

<sup>305</sup> *JumpTV.com Pullout Doesn't End Debate on Streaming TV Copyright*, Comm. Daily, Oct. 15, 2001, at 3-4.

<sup>306</sup> *Id.*

<sup>307</sup> *Mass Media*, Comm. Daily, Aug. 28, 2001, at 6; Sally Beatty, *Cable Operator Drops ESPNNews, Escalating Dispute Over Video Streaming*, Wall Street Journal, July 2, 2001, at B22; John Higgins, *ESPNNews Going Dark on Charter*, Broadcasting Cable Online, July 2, 2001, at [http://www.tvinsite.com/broadcasti...print\\_page&doc\\_id=34049&articleID=](http://www.tvinsite.com/broadcasti...print_page&doc_id=34049&articleID=); Laura Rich, *Kicking and Streaming*, The Industry Standard Online, June 11, 2001, at [http://www.thestandard...02,26836,00.html?printer\\_friendly=](http://www.thestandard...02,26836,00.html?printer_friendly=); *ESPN-Charter Dispute Shows Cable Fears of Video Streaming*, Comm. Daily, July 5, 2001, at 2.

<sup>308</sup> *Id.*

<sup>309</sup> *Id.*

<sup>310</sup> *RealNetworks Fuses Programs into Service*, Reuters, Sept. 23, 2001, at <http://news.cnet.com/news/0-1005-200-7277594.html>; *RealNetworks Melds Audio, Video Platforms*, InternetNews.com, Sept. 24, 2001, at [http://www.internetnews.com/streaming-news/article /0,,861\\_889 881,00.html](http://www.internetnews.com/streaming-news/article /0,,861_889 881,00.html).

estimates that RealNetworks' RealPlayer has more than 24.4 million users.<sup>311</sup> The amount of video programming content on the Internet also continues to grow.<sup>312</sup> In addition, traditional television programmers are offering Internet video versions of their broadcast or cablecast programming or supplemental webcast programming. For example, RealNetworks and the NBA teamed up in April 2001 to offer a webcast of the Dallas Mavericks versus the Sacramento Kings basketball game in what they say was the first live video webcast of a professional sports league game.<sup>313</sup> Video-on-demand provider Intertainer and DSL provider ZoomTown.com say they will stream Hollywood movies and other entertainment content to ZoomTown's DSL subscribers through a video-on-demand service system.<sup>314</sup> MTV plans to launch a channel designed specifically for access via the Internet.<sup>315</sup> The channel will be called MTV Live, and will draw heavily from its library of live performances by various acts.<sup>316</sup> Partnerships and marketing agreements between Web sites and traditional programming providers also continue. In August 2001, five movie studios announced a joint venture to distribute movies on-demand over the Internet.<sup>317</sup>

93. Technological firms and services also continue to facilitate streaming video and address its weaknesses. Aerocast, Inc., is creating methods to deliver high-speed streaming video content at more than 500 kbps with its long term goal to stream video directly to a television set or receiver via a broadband cable provider.<sup>318</sup> Arbitron and Lariat continue to measure and report the viewership of streaming video.<sup>319</sup> In addition, The Media Channel continues to catalogue and list available Internet video programming.<sup>320</sup>

94. Finally, many in the industry have been pushing for Internet video standards. In December 2000, Apple, Cisco, Kasenna, Inc., Philips, Sun Microsystems, and other companies launched the Internet

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<sup>311</sup> *Id.*

<sup>312</sup> <http://www.breaktv.com>; <http://www.feedroom.com>; <http://www.intv.net>; <http://www.television.com>; <http://www.broadcast.com>; <http://www.tvtaxi.com>; <http://www.tvworldwide.com>.

<sup>313</sup> Gwendolyn Mariano, *RealNetworks to Play NBA Live*, CNET News.com, Apr. 9, 2001, at <http://news.cnet.com/news/0-1005-202-5550801.html>; Richard Alm, *Mavericks to Get First Shot at Web Broadcast*, Dallas News.com, Apr. 20, 2001, at [http://www.dallasnews.com/technology/334785\\_MavsKings\\_10bu.html](http://www.dallasnews.com/technology/334785_MavsKings_10bu.html).

<sup>314</sup> Gwendolyn Mariano, *Intertainer Turns on Streaming in Cincinnati*, CNET News.com, Mar. 29, 2001, at <http://news.cnet.com/news/0-1005-202-5381234.html>.

<sup>315</sup> Steve Gold, *MTV Europe to Launch its First Broadband Channel*, NewsBytes, Aug. 15, 2001, at <http://www.newsbytes.com/cgi-bin/u...lient.id=newsbytes&story.id=169-61>.

<sup>316</sup> Steve Gold, *MTV Europe to Launch its First Broadband Channel*, NewsBytes, Aug. 15, 2001, at <http://www.newsbytes.com/cgi-bin/u...lient.id=newsbytes&story.id=169-61>.

<sup>317</sup> The five movie studios are MGM, Paramount, Sony Pictures, Universal, and Warner. Disney is independently pursuing its own video-on-demand service. Bruce Orwall, *Five Studios Join Venture for Video on Demand*, Wall Street Journal, Aug. 17, 2001, at A3; Rick Lyman, *Hollywood Moves to Rent Movies Online*, New York Times, Aug. 17, 2001; Alec Klein, *Five Studios to Offer Films Online*, Washington Post, Aug. 17, 2001, at E01; *Clearband Says Movie Studio Project Threatens Cable*, Comm. Daily, Aug. 21, 2001, at 3.

<sup>318</sup> Ann Donahue, *Aerocast Goes Full Speed Ahead*, Video Business Online, Aug. 14, 2001, at [http://www videobusiness.com/news/081401\\_aerocast\\_streaming\\_video.asp](http://www videobusiness.com/news/081401_aerocast_streaming_video.asp).

<sup>319</sup> See <http://www.lariat.com>; [http://internet.arbitron.com/webcast\\_index.htm](http://internet.arbitron.com/webcast_index.htm).

<sup>320</sup> See <http://www.mediachannel.com/info.htm>.

Streaming Media Alliance (“ISMA”) to accelerate the market adoption of open standards for streaming media over IP.<sup>321</sup>

## 2. Home Video Sales and Rentals

95. We consider the sale and rental of home video, including videocassettes, DVDs, and laser discs, part of the video marketplace because they provide services similar to the premium and pay-per-view offerings of MVPDs.<sup>322</sup> The home video industry views cable television, direct broadcast satellite services, and broadcast television as its competition.<sup>323</sup> It also expects that near video on demand and video on demand services offered by MVPDs, now principally offered on a test basis, and streaming video over the Internet will provide additional competition in the near future.<sup>324</sup> Moreover, digital compression technologies, which enable cable operators, DBS providers, and others to transmit a greater number of movies to consumers at more frequent intervals, could provide additional competition to home video retailers.<sup>325</sup>

96. Approximately 93 million U.S. households, or about 90 percent of all households, have at least one VCR, with nearly 46 million households owning at least two VCRs.<sup>326</sup> By the end of 2000, the number of homes with DVD players reached approximately 14.5 million, and it is estimated that 25 million homes will have DVDs by the end of 2001.<sup>327</sup> In addition, about two million homes have laser disc players.<sup>328</sup> U.S. consumers spent approximately \$19.04 billion renting and buying prerecorded video

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<sup>321</sup> John Townley, *Streaming Media Alliance to Accelerate Open Standards*, InternetNews.com, Dec. 12, 2000, at [http://www.internetnews.com/streaming-news/article/0,,8161\\_532681,00.html](http://www.internetnews.com/streaming-news/article/0,,8161_532681,00.html); Paul Festa, *New Streaming Standards Effort Missing Market Leaders*, CNET News.com, Dec. 15, 2000, at <http://news.cnet.com/news/0-1005-202-4157183.html>.

<sup>322</sup> See, e.g., *Competition, Rate Deregulation and the Commission's Policies Relating to the Provision of Cable Television Service*, MM Docket No. 89-600, Report, 5 FCC Rcd 4962, 5019-20 (1990); *1995 Report*, 11 FCC Rcd at 2118-9; *1998 Report*, 13 FCC Rcd at 24350.

<sup>323</sup> See Viacom Inc., *SEC Form 10-K for the Year Ended December 31, 2000* (“Viacom 10-K”); Hollywood Entertainment Corp., *SEC Form 10-K for the Year Ended December 31, 2000* (“Hollywood Entertainment 10-K”); Blockbuster Inc., *SEC Form 10-K for the Year Ended December 31, 2000* (“Blockbuster 10-K”). In September 2000, Blockbuster began selling DirecTV equipment and programming packages and, in 2001, it introduced a co-branded pay-per-view service with DirecTV, Blockbuster Ticket, that can be ordered over the telephone or Internet. See DirecTV and Blockbuster at <http://www.directv.com> and <http://www.blockbuster.com>, respectively.

<sup>324</sup> *Annual Report on the Home Entertainment Industry 2001*, Video Software Dealers Association (“VSDA Report”), at 25-26; Hollywood Entertainment 10-K; Viacom 10-K; Blockbuster 10-K.

<sup>325</sup> Hollywood Entertainment 10-K, Viacom 10-K; VSDA Report at 26.

<sup>326</sup> VSDA Report at 6, 26. Other sources provide alternative estimates of VCR penetration ranging between approximately 87 percent to over 93 percent of all television households. See, e.g., Hollywood Entertainment 10-K citing Adams Media Research statistics; Veronis Suhler, *Communications Industry Forecast*, July 2001, at 191.

<sup>327</sup> VSDA Report at 6, 18. Hollywood Entertainment citing the DVD Entertainment Group estimates a 27 percent penetration for DVDs by the end of 2001. The number of DVD households is expected to grow significantly as DVD player prices continue to decline. VSDA at 6. The average DVD player now sells for \$193, down from an average price of \$298 in 1999, and compared to the average VCR price of \$73. Christopher Stern, *Blockbuster Switching Focus to DVDs*, Washington Post, Sept. 11, 2001, at E1, 12.

<sup>328</sup> Tom Shales, *Shall We Dance? With DVD, Indeed*, Washington Post, June 2, 1999, at C1.

in 2000, almost a 10 percent increase over the \$17.36 billion we reported last year.<sup>329</sup> Total rental revenue was \$8.25 billion in 2000, compared to \$8.07 billion in 1999, an increase of 2.2 percent.<sup>330</sup> Total revenue from video sales increased to \$10.79 billion in 2000, up from \$9.24 billion in 1999, an increase of 17 percent.<sup>331</sup> In the last year, DVDs have doubled their share of both the rental and sales markets, accounting for 6.9 percent of all rental revenue and 16 percent of sales revenues.<sup>332</sup> The video retail industry is the largest source of revenue for movie studios, generating approximately half of their revenues in 2000.<sup>333</sup> In this regard, we note that, since 1997, the largest video chains and several movie studios have shared rental revenues.<sup>334</sup>

97. The video retail industry is considered competitive, with about 19,800 video specialty stores selling or renting home video programming.<sup>335</sup> There also are more than 8,000 retail outlets, primarily supermarkets and drug stores, that rent videos.<sup>336</sup> Mass merchandise stores (e.g., Wal-Mart and Target) and electronics chain stores (e.g., Best Buy and Circuit City) compete with specialty video stores in the sale of videos.<sup>337</sup> In recent years, the home video industry has undergone a period of consolidation, with many independent operators selling to larger concerns or closing their businesses.<sup>338</sup> The Internet also has become a source for video rentals<sup>339</sup> and sales.<sup>340</sup>

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<sup>329</sup> VSDA Report at 12, 16; *2000 Report*, 16 FCC Rcd at 6057-8.

<sup>330</sup> VSDA Report at 12.

<sup>331</sup> *Id.* at 16.

<sup>332</sup> *Id.* at 12, 16. Retailers, both video specialty stores and others, are allotting increasing amounts of shelf space to DVDs. VSDA Report at 16-18; Christopher Stern, *Blockbuster Switching Focus to DVDs*, Washington Post, Sept. 11, 2001, at E1, 12.

<sup>333</sup> See, e.g., Hollywood Entertainment 10-K citing Adams Media Research statistics (the movie studios' 2000 home video revenues of \$9.5 billion represented 54.8 percent of their \$17.4 billion domestic revenue), Blockbuster 10-K citing Paul Kagan Associates statistics (the movie studios' 2000 home video revenues of \$7.9 billion represents 44.3 percent of their \$17.8 billion domestic revenue).

<sup>334</sup> VSDA Report at 13-14; *2000 Report*, 16 FCC Rcd at 6058.

<sup>335</sup> See, e.g., VSDA Report at 8; Viacom 10-K.

<sup>336</sup> *Id.*

<sup>337</sup> VSDA Report at 8-10. Videos also can be borrowed from public libraries. Blockbuster 10-K; Hollywood Entertainment 10-K; Viacom 10-K.

<sup>338</sup> For example, video superstores (e.g., Blockbuster, Hollywood) have a 58.9 percent share of the video rental business. VSDA Report at 10. Etna comments that it is difficult for small independent video businesses to compete against the large video chain stores because of their revenue sharing agreements with the movie studios. Etna Comment at 1-2.

<sup>339</sup> For example, for a monthly fee of \$19.95, Netflix allows consumers to rent DVDs from its Internet site with the movies sent to the consumer and returned to the company through the mail. See <http://www.netflix.com>. In addition, consumers in several markets can search Blockbusters' inventory over the Internet and reserve videos online before going to the store to pick them up. See <http://www.blockbuster.com>.

<sup>340</sup> For example, Best Buy and Amazon.com sell video programming through their Internet sites. See <http://www.bestbuy.com> and <http://www.amazon.com>. Express.com is limited to the sales of DVDs. See <http://www.express.com>. Previously, Blockbuster and Hollywood Entertainment, using its reel.com web site, sold video programming over the Internet. However, both companies now are withdrawing from e-commerce and

(continued...)

98. Another home video technology is the personal video recorder (“PVR”).<sup>341</sup> One source reports that 500,000 PVRs have been sold since this technology was introduced two years ago.<sup>342</sup> Currently, there are three companies offering PVRs, Replay TV Inc., TiVo, Inc., and Microsoft. Last year, we reported that ReplayTV would no longer sell PVRs directly to consumers, but would focus on licensing its technology to cable and other television-oriented companies.<sup>343</sup> In August 2001, Sonicblue acquired ReplayTV, and announced that it again would sell PVRs over the Internet and at select retail outlets.<sup>344</sup> TiVo is offered on a subscription basis for approximately \$10 a month.<sup>345</sup> About 20 percent of its reported 200,000 subscribers receive the service through DirecTV using a set-top box that combines DBS and PVR functions.<sup>346</sup> Recently introduced, Microsoft’s UltimateTV is only offered by DirecTV, also for a monthly fee of approximately \$10. Its combined DBS/PVR receiver features dual tuners that allow viewers to watch and record two live programs at the same time, or to surf the Internet while watching television.<sup>347</sup> In addition, EchoStar offers set-top boxes, the DISHPlayer and the DishPVR, with PVR capabilities.<sup>348</sup>

### G. Local Exchange Carriers

99. The 1996 Act amended Section 651 of the Communications Act in order to permit telephone companies to provide video services in their telephone service areas. According to the statute, common carriers may: (1) provide video programming to subscribers through radio communications under Title III of the Communications Act;<sup>349</sup> (2) provide transmission of video programming on a common carrier basis under Title II of the Communications Act;<sup>350</sup> (3) provide video programming as a cable system

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focusing on providing entertainment news and information on their sites. See <http://www.blockbuster.com> and <http://www.reel.com>. See also *2000 Report*, 16 FCC Rcd at 6058-9.

<sup>341</sup> See *2000 Report*, 16 FCC Rcd at 6059-69. See also *1999 Report*, 15 FCC Rcd at 1035.

<sup>342</sup> See Michael Grotticelli, *Reviving ReplayTV*, *Broadcasting & Cable*, Sept. 10, 2001, at 32.

<sup>343</sup> *2000 Report*, 16 FCC Rcd at 6059-60.

<sup>344</sup> Natalie Weinstein, *Sonicblue Completes ReplayTV Acquisition*, CNET News.com, Aug. 2, 2001, at <http://news.cnet.com/newx/0-1006-200-6762533.html>; Khanh T.L. Tran, *TiVo, Sonicblue Still See the Bright Side*, *Wall Street Journal*, Aug. 31, 2001, at B3. Sonicblue also plans to provide Ethernet capabilities in order to offer a subscription service for niche programming. Michael Grotticelli, *Reviving ReplayTV*, *Broadcasting & Cable*, Sept. 10, 2001, at 32.

<sup>345</sup> <http://www.tivo.com>; Walter S. Mossberg, *Personal Technology, SuperSet-Top Boxes Put Viewers in Charge, Change TV Habits*, *Wall Street Journal*, Feb. 22, 2001, at B1. See also *1999 Report*, 15 FCC Rcd at 1035.

<sup>346</sup> *TiVo Reports Subscriber Increases, Lower Losses*, *Satellite Business News Fax Update*, May 30, 2001, at 2; <http://www.directv.com>.

<sup>347</sup> See <http://www.directv.com>; <http://www.umatetv.com>.

<sup>348</sup> <http://www.dishnetwork.com/content/products/receivers/index.shtml>.

<sup>349</sup> 47 U.S.C. § 571(a)(1).

<sup>350</sup> 47 U.S.C. § 571(a)(2).

under Title VI of the Communications Act;<sup>351</sup> or (4) provide video programming by means of an open video system ("OVS").<sup>352</sup>

100. ILECs have largely exited the video business.<sup>353</sup> The exceptions to this trend are BellSouth, which, in addition to reselling DBS service, continues to operate some overbuild cable systems, and a number of smaller LECs that are offering, or preparing to offer, MVPD service over existing telephone lines.

101. **MMDS.** As previously reported, GTE (now Verizon) operated a digital MMDS system in Oahu, Hawaii,<sup>354</sup> but has since sold it to Craig Wireless Honolulu, Inc.<sup>355</sup> BellSouth completed its restructuring of its MMDS business by transitioning its MMDS customers to EchoStar or other video providers.<sup>356</sup>

102. **In-Region Cable Franchises.** At one point, Ameritech, now owned by SBC, was the most significant LEC provider of in-region cable service.<sup>357</sup> SBC sold the systems to WideOpenWest in May of this year.<sup>358</sup> BellSouth currently holds 20 cable franchises with the potential to pass 1.4 million homes, and provides cable service in 14 of its franchise areas.<sup>359</sup> We previously reported that GTE operated competitive cable franchises in Ventura County, California, and St. Petersburg and Clearwater, Florida, and non-competitive franchise in Cerritos, California.<sup>360</sup> Verizon, however, reportedly is seeking to sell these assets.<sup>361</sup> SNET, now also owned by SBC Communications, at one point held a statewide cable franchise in Connecticut and offered service to 30,000 subscribers in 29 localities.<sup>362</sup> Subsequently, SNET filed with the State of Connecticut's Department of Public Utility Control ("DPUC") for permission to discontinue cable television service in Connecticut and to transition its subscribers to

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<sup>351</sup> 47 U.S.C. § 571(a)(3).

<sup>352</sup> 47 U.S.C. § 571(a)(3)-(4).

<sup>353</sup> 1998 Report, 13 FCC Rcd at 24331-2; 2000 Report, 16 FCC Rcd at 6061.

<sup>354</sup> 1998 Report, 13 FCC Rcd at 24534.

<sup>355</sup> Federal Communications Commission, *Mass Media Bureau, Instructional Television Fixed Wireless Service, Multipoint Distribution Service Accepted for Filing*, Public Notice (Sept. 25, 2001). See also Kristin Sawada, *Craig to Buy Americast*, PacificBusinessNews, June 15, 2001.

<sup>356</sup> See BellSouth Corp., *BellSouth Updates Plans for Restructuring its Video Entertainment Service* (press release), Dec. 19, 2000. See also Michael E. Kanell, *BellSouth Pulls the Plug on Wireless TV*, Atlanta Constitution, May 16, 2001, at D1.

<sup>357</sup> 1999 Report, 15 FCC Rcd at 1036-37.

<sup>358</sup> *SBC Sells Americast Cable Overbuild Systems To Wide Open West*, Comm. Daily, May 25, 2001, at 2-3. We discuss WideOpenWest in the Broadband Service Providers section.

<sup>359</sup> Telephone interview with Karen B. Possner, Vice President-Strategic Policy, BellSouth Corporation (Nov. 13, 2001). The active franchises are located in: Vestavia Hills, Alabama; St. John's County, Dade County, Davie, and Pembroke Pines, Florida; Counties of Cherokee, Cobb, Dekalb, and Gwinnett and Cities of Chamblee, Duluth, Lawrenceville, Roswell, and Woodstock, Georgia.

<sup>360</sup> 1998 Report, 13 FCC Rcd at 24355.

<sup>361</sup> *Verizon Trying to Unload GTE Cable TV Assets*, TR Daily, July 3, 2000.

<sup>362</sup> 2000 Report, 16 FCC Rcd at 6062.



DirectTV DBS Service.<sup>363</sup> The DPUC granted this permission, with conditions to ease the transition of SNET's cable subscribers.<sup>364</sup>

103. **VDSL.** Qwest Communications International (formerly U S West) offers video, high-speed Internet access, and telephone service over existing copper telephone lines using very high speed digital subscriber line ("VDSL") in Omaha, Nebraska, and Phoenix, Arizona.<sup>365</sup> An increasing number of small LECs are using VDSL to offer a bundle of services, including multichannel video, over phone lines. Reports indicate that 40 to 50 LECs, mostly small, are using VDSL technology for this purpose, that they have 100,000 video subscribers, and that more than 280,000 lines to households are capable of delivering VDSL services.<sup>366</sup> Companies are also deploying, or investigating deploying, video over the lower bandwidth asymmetric digital subscriber line service ("ADSL"). Because of the lower capacity, video over ADSL involves an IP-based video-on-demand service, rather than full-fledged multichannel video. Qwest has contracted with Intertainer, Inc., to provide this service in Seattle, Washington, Portland, Oregon, Salt Lake City, Utah, Denver, Colorado, Minneapolis, Minnesota, and Phoenix, Arizona,<sup>367</sup> and Verizon is investigating whether to offer the service to MDUs in its territory.<sup>368</sup> Between 5,000 and 10,000 households currently subscribe to ADSL video-on-demand service.<sup>369</sup>

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<sup>363</sup> State of Connecticut, Department of Public Utility Control, *Application of Southern New England Telecommunications Corporation and SNET Personal Vision, Inc., To Relinquish SNET Personal Vision, Inc.'s Certificate of Public Convenience and Necessity ("SNET Application")*, Docket No. 00-08-14, Mar. 14, 2001. See also SNET, *SNET Cable Unit Seeks to Exit Cable TV Business* (press release), Aug. 11, 2000.

<sup>364</sup> See *SNET Application*.

<sup>365</sup> *2000 Report*, 16 FCC Rcd at 6062. See also Matt Stump, *In Omaha, Cox and Qwest Wage Three-Way Contest*, *Broadband Week*, Oct. 1, 2001.

<sup>366</sup> Roger Bindl, Next Level Communications, *Video In Telephony*, Nov. 9, 2001. According to Next Level Communications, the companies offering VDSL include Qwest Communications, Wood County Telephone, Horizon Exop, Tri County, All West, Hutchinson, New Ulm, XIT Telecommunications & Technology, Inc., Pine Island Telephone, Washington County, Halstad, NEP, HTC, PBT Communications & Paul Bunyan Rural Telephone Cooperative, Craw-Kan Telephone Cooperative, Clear Lake Independent Telephone, Yadkin Valley Telephone Membership Cooperative, Outreach, Hickory Tech, Chequamegon Telephone, Horry Telephone Cooperative, Mankato, North Star, Sleepy Eye, CTC Communication & Chibardun Telephone Cooperative, Brandenburg LLP, Delhi, Hansol, Manti Telephone Company, WH-Link, Skyline Telephone, Membership, Sherburne Tele Systems, Inc., Piedmont Telephone Membership Corporation, Iowa Network Services, Century Telephone, En-Tel Communications, LLC, and North-Eastern Pennsylvania Telephone Co. E-mail from Roger Bindl, Director, Engineering & Consulting Companies, Next Level Communications, Oct. 18, 2001. Some of the other small LECs deploying VDSL are Wood County Telephone in Wood County, Wisconsin, Paul Bunyan Telephone in Bemidji, Minnesota, Hutchinson Telephone Company in Hutchinson, Minnesota, Hart Telephone Company in Hartwell, Georgia, and Horizon Chillicothe Telephone in Chillicothe, Ohio. Karen Brown, *Getting the Picture? Telcos Struggle With Unfocused Video Market*, *Broadband Week*, June 4, 2001.

<sup>367</sup> Karen Brown, *Getting the Picture? Telcos Struggle With Unfocused Video Market*, *Broadband Week*, June 4, 2001.

<sup>368</sup> Richard Williamson and Bill Scanlon, *DSL Video Service Goes Condo*, *Interactive Week*, Apr. 15, 2001.

<sup>369</sup> Roger Bindl, Next Level Communications, *Video In Telephony*, Nov. 9, 2001.

## H. Electric and Gas Utilities

104. Electric and gas utilities continue to move forward with ventures involving multichannel video programming distribution, but are not yet major competitors in the telecommunications or cable markets. Some of their characteristics, however, such as ownership of fiber optic networks and access to public rights-of-way, could make them competitively significant.<sup>370</sup> Some utilities seek to offer telecommunications services on their own, while others partner with broadband service providers, such as RCN, to offer service. It also appears that some utilities, particularly some municipal utilities in rural areas, are willing to build advanced telecommunications networks offering a full range of services where incumbent cable operators and telephone companies are not.<sup>371</sup>

105. One of the oldest municipal utility overbuilders, Glasgow Electric Plant Board, in Glasgow, Kentucky, bought the competing incumbent cable system from Comcast and plans to upgrade the system to provide high-speed Internet service to its customers.<sup>372</sup> Starpower, a joint venture between RCN and Potomac Electric and Power Company (“PEPCO”) in the Washington, D.C., area continues to build out its network and “...increase penetration in its chosen markets.”<sup>373</sup> We previously reported on the activities of Seren, a wholly owned subsidiary of Minneapolis-based Northern States Power,<sup>374</sup> and Sigecom, funded by Blackstone Capital and a joint venture of Southern Indiana Gas and Electric and Utilicom.<sup>375</sup> RCN, Seren, and Sigecom offer voice, video, and high-speed Internet access services over integrated networks. In addition to the communities they were serving, or had applied for franchises to serve last year, Sigecom received a franchise to serve Louisville, Kentucky,<sup>376</sup> and Seren began service in St. Joseph, Minnesota.<sup>377</sup> Finally, Braintree, Massachusetts, granted a franchise to the municipal electric utility, Braintree Electric Light Department, which began offering cable service in February 2001.<sup>378</sup>

106. Newer reports of entry into the market include Grande Communications, a Texas-based BSP, which is involved in a strategic partnership with Reliant Energy and plans to provide bundled services to Houston beginning in 2002.<sup>379</sup> In Scottsboro, Alabama, the Electric Power Board began offering cable television service over a municipal system in 1999 and, at one point, captured 90 percent of

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<sup>370</sup> See, e.g., *1999 Report*, 15 FCC Rcd at 1042.

<sup>371</sup> See, e.g., Gerry Blackwell, *Wireless in the Wild*, ISP Planet, Aug. 16, 2001 and Dennis K. Berman, *Isolated County Gambles With Broadband Network*, Wall Street Journal, Aug. 17, 2001, at B1.

<sup>372</sup> *Mass Media*, Comm. Daily, Apr. 12, 2001, at 8.

<sup>373</sup> RCN Comments at 5.

<sup>374</sup> *1999 Report*, 15 FCC Rcd at 1042.

<sup>375</sup> *2000 Report*, 16 FCC Rcd at 6065.

<sup>376</sup> Sigecom, *TOTALink Granted Competitive Cable Television Franchise by Louisville Board of Alderman* (press release), Nov. 14, 2000.

<sup>377</sup> Seren, *Astound Broadband to Begin Offering Service Today in the City of St. Joseph* (press release), Aug. 7, 2001.

<sup>378</sup> *Mass Media*, Comm. Daily, Feb. 23, 2001, at 10.

<sup>379</sup> Joe Estrella and Linda Haugsted, *Despite Some Losses, Overbuilds Persist*, Multichannel News, June 11, 2001, at 56.

the market.<sup>380</sup> Utilicorp Communications Services, which is owned by a natural gas and electricity distributor, has invested in two BSPs offering bundled services, Everest Connections Corporation (“Everest”) and ExOp of Missouri, Inc. (“ExOp”).<sup>381</sup> Everest offers service in Lenexa, Kansas, a suburb of Kansas City,<sup>382</sup> ExOp entered Kearney, Missouri, as a CLEC, but Utilicorp acquired it and added digital cable television services using VDSL technology.<sup>383</sup> Utilicorp reports problems as an entrant in these markets, including difficulties in negotiating franchises, negotiating pole attachment agreements, entering MDUs, and gaining access to equipment and programming.<sup>384</sup> Other communities with video service from their utility companies include Grant County, Washington,<sup>385</sup> Alameda, California, Gainesville, Florida, and Tacoma, Washington.<sup>386</sup>

### I. Broadband Service Providers, Open Video Systems, and Overbuilders

107. In this year’s *Report*, we add a new section, BSPs, to recognize the growing importance of providers that are overbuilding existing cable systems with state-of-the-art systems that offer a bundle of telecommunications services.<sup>387</sup> Historically, overbuilding incumbent cable systems has been economically difficult. BSPs appear to be attempting to overcome the difficulties of overbuilding by taking advantage of regulation new to the 1996 Act (most notably the open video system rules), carefully selecting communities with favorable demographics, such as high population density, and building systems that are more advanced than the incumbent cable operators’. Building advanced systems allows BSPs the ability to offer a bundle of services, such as video, voice, and high-speed Internet access, which may increase per subscriber revenue and decrease churn.<sup>388</sup>

108. Even with their selective strategy, BSPs face considerable challenges. Currently, in addition to the difficulties inherent in entering the capital-intensive MVPD industry against entrenched

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<sup>380</sup> See Scottsboro Comments at 5. Scottsboro claims that the incumbent (formerly Falcon, now Charter) has engaged in unfair practices to regain customers. See Scottsboro Comments, *generally*. Charter disputes this claim. Charter Reply Comments.

<sup>381</sup> Utilicorp Comments at 1.

<sup>382</sup> *Id.* at 2-3.

<sup>383</sup> *Id.* at 3-4. ExOp serves 48 percent of residential households and 94 percent of business customers.

<sup>384</sup> *Id.* at 4-8.

<sup>385</sup> Dennis K. Berman, *Isolated County Gambles With Broadband Network*, Wall Street Journal, Aug. 17, 2001, at B1.

<sup>386</sup> David Armstrong and Dennis K. Berman, *Telecom Companies Confront New Rival: The Municipal Network*, Wall Street Journal, Aug. 17, 2001, at A1.

<sup>387</sup> “Broadband service provider” is the term used by the class of new entrants to describe the range of service they offer and is not intended to imply anything with respect to Commission policy or other proceeding that might involve broadband services. Usually, these services can be purchased separately as well as in a bundle. We defined “broadband providers” in the *Notice* as, “...newer firms that are building state-of-the-art facilities-based networks to provide video, voice and data services over a single network.” *Notice*, 16 FCC Rcd at 13342.

<sup>388</sup> RCN Comments at 3-4.

competitors, BSPs are facing difficulties in obtaining capital. As a result, many BSPs have scaled back plans, reduced capital expenditures, reduced staffs, or shut down operations altogether.<sup>389</sup>

109. RCN is the largest BSP in the country. We previously reported on RCN's activities, and its operation of facilities in New York City, Washington, D.C., Washington, D.C. suburbs, South San Francisco, California, Boston, Massachusetts, and its suburbs, Northern New Jersey, and suburbs of Philadelphia.<sup>390</sup> RCN reports that it continues to build out its network and increase penetration in its chosen markets.<sup>391</sup> Between the first quarter of 2000 and the first quarter of 2001, RCN's revenue increased by 21 percent, its number of marketable homes doubled to 1.2 million, homes passed doubled to 1.455 million, and the route miles of its network doubled.<sup>392</sup> RCN indicates that there has been "substantial growth in the Boston, New York, Philadelphia, Washington, D.C., Chicago, Los Angeles, and San Francisco venues."<sup>393</sup> RCN reports a total of 443,011 video subscribers, although some of these are subscribers to incumbent cable systems it operates.<sup>394</sup>

110. WideOpenWest ("WOW") recently became the second largest overbuilder with its acquisition of Ameritech New Media's cable systems.<sup>395</sup> WOW was founded in November 1999, and initially secured competitive franchises in Denver and Fort Worth, Colorado, Tucson, Arizona, St. Louis, Missouri, and Minneapolis/St. Paul, Minnesota.<sup>396</sup> As a result of difficulties in acquiring capital, however, WOW scaled back its plans, and now is constructing systems only in selected metropolitan Denver communities.<sup>397</sup> The systems it is purchasing from Ameritech are all in the Midwest,<sup>398</sup> and served, at last report, approximately 300,000 subscribers.<sup>399</sup>

111. The third largest BSP is Knology, an overbuilder based in Knoxville, Tennessee, which operates in the Southeast. As of June 30, 2001, Knology was the 26<sup>th</sup> largest MVPD provider (excluding

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<sup>389</sup> Carolina Comments at 5; RCN Comments at 7; *see also New Broadband Players Retreat From Cable, Telecom Markets*, Comm. Daily, Apr. 11, 2001, at 2-3.

<sup>390</sup> *2000 Report*, 16 FCC Rcd at 6063. RCN is not building within Philadelphia itself because it was unable to reach a franchise or OVS agreement with the city. *See, e.g., Mass Media*, Comm. Daily, Feb. 16, 2001, at 7.

<sup>391</sup> RCN Comments at 5.

<sup>392</sup> *Id.* at 5-6.

<sup>393</sup> *Id.* at 6.

<sup>394</sup> *Id.* at App. B.

<sup>395</sup> WOW, *WOW Acquires Ameritech's 310,000 Cable TV Subscribers* (press release), Dec. 3, 2001, at [http://wideopenwest.com/00\\_frame\\_news.html](http://wideopenwest.com/00_frame_news.html). *See also* WOW Comments at 2. The Ameritech systems are not technically "BSP systems" because they do not provide a bundle of services, but they do provide WOW with connections to homes. One commenter indicates that WOW will begin offering high-speed Internet access on some of these systems in 2002. NCTA Comments at 21.

<sup>396</sup> WOW Reply Comments at 4.

<sup>397</sup> *Id.* *See also* NCTA Comments at 21. NCTA's comments indicate that WOW is already operational in Denver, but WOW's comments do not reflect this.

<sup>398</sup> For details, *see 1999 Report*, 15 FCC Rcd at 1036-7.

<sup>399</sup> *See n. 395 supra.* *See also* NCTA, *Top 25 MSOs, Ranked by Number of Subscribers*, Cable Television Developments 2001, at 17.

satellite) with 110,100 subscribers,<sup>400</sup> and served cities in Alabama, Florida, Georgia, Tennessee, and South Carolina.<sup>401</sup> Knology has acquired or is building systems in additional areas of Tennessee and Kentucky, including Knoxville and Nashville.<sup>402</sup>

112. Grande Communications has franchises in more than 30 Texas cities, and has launched service in Austin, San Marcos, and San Antonio, Texas.<sup>403</sup> Western Integrated Networks (“WIN”) recently received a franchise to build a system to serve 1.4 million households in Los Angeles.<sup>404</sup> WIN has franchise applications pending in Seattle, Washington; Portland, Oregon; San Francisco and Oakland, California; Las Vegas, Nevada; Phoenix, Arizona; and San Antonio, Austin, Dallas, and Houston, Texas.<sup>405</sup> Altrio Communications secured \$125 million in an initial round of financing and seeking franchises serving Los Angeles and surrounding communities.<sup>406</sup> Finally, Carolina Broadband has plans to serve Charlotte, Raleigh/Durham, and Winston-Salem/Greensboro, North Carolina, and Columbia and Greenville/Spartanburg, South Carolina.<sup>407</sup>

113. **OVS.** Several BSPs, including some that are CLECs, operate open video systems, hold OVS certifications, or hold local OVS franchises.<sup>408</sup> RCN is by far the largest OVS operator in the country (and the only operational one), both in terms of certifications and in number of subscribers. RCN operates open video systems in the five boroughs of New York City, in Washington, D.C., and in a few small communities around Boston.<sup>409</sup> RCN reports that speed to market is crucial for it, so that RCN will adopt the regulatory approach (OVS agreement, OVS franchise, or Title VI franchise) most amenable to

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<sup>400</sup> Paul Kagan Assoc., Inc., *Top Cable System Operators as Of 6/30/01 (By Basic Subs)*, Cable TV Investor, Aug. 29, 2001, at 12.

<sup>401</sup> Knology, Inc., at <http://www.knology.com/cities/index.cfm>. According to its Web site, Knology serves Gunter Air Force Base, Harvest, Huntsville, Lanett, Madison, Maxwell Air Force Base, Montgomery, Pike Road, Prattville, Redstone Arsenal, and Valley, Alabama; Lynn Haven, Panama City, and Panama City Beach, Florida; Augusta, Columbus, Evans, Forest Hills, Grovetown, Martinez, Midland, and West Point, Georgia; Knoxville, Tennessee; and Charleston, Ladson, Mount Pleasant, North Charleston, and Summerville, South Carolina.

<sup>402</sup> *Id.*

<sup>403</sup> Grande Communications, Inc., *About Grande*, at [http://www.grandecomm.com/About/GRD\\_Milestones.pdf](http://www.grandecomm.com/About/GRD_Milestones.pdf). See also NCTA Comments at 23. See ¶ 106 *infra* for information on Grande’s partnership with Reliant Energy to provide service to Houston. The Commission has pending effective competition petitions before it regarding Grande Communication’s activities in Austin and San Antonio. See CSR 5701-E and CSR 5721-E.

<sup>404</sup> Sallie Hofmeister, *L.A. Council OKs Cable Competition*, Los Angeles Times, July 25, 2001. WIN plans to begin construction sometime during 2001, and begin service 12 to 18 months after the start of construction. In the franchise agreement, WIN committed to completing construction in one franchise area by 2005 (Los Angeles is divided into many franchise areas), and to complete half the system construction by 2007.

<sup>405</sup> NCTA Comments at 22.

<sup>406</sup> Altrio Communications, *Altrio Communications Enters the Los Angeles Telecommunications Market* (press release), Oct. 25, 2000. See also NCTA Comments at 22.

<sup>407</sup> Carolina Comments at 1.

<sup>408</sup> For a complete listing of approved, pending, and denied applications for OVS certification, see <http://www.fcc.gov/csb/csovscer.html>.

<sup>409</sup> Telephone interview with Scott Burnside, Senior Vice President, Regulatory & Government Affairs, RCN (Nov. 15, 2001).

the local franchising authorities.<sup>410</sup> RCN also reports that it has received “numerous expressions of interest” from potential video programming packagers, but none has signed up yet for service.<sup>411</sup>

114. **Barriers to Competition.** Several BSPs filed comments in this proceeding reporting barriers to competition in the MVPD market. RCN reports that it still is unable to gain access to programming due to migration to terrestrial delivery. In particular, RCN states that it cannot access local sports programming in the New York City and Philadelphia markets.<sup>412</sup> RCN believes that the cable industry, recognizing the essential nature of local sports programming for MVPD entrants, has “...adopted ownership or control of local sports programming as a device to capture or assure dominance in local markets.”<sup>413</sup> RCN further indicates that the program access prohibition on exclusivity is “absolutely vital” for the future of competition.<sup>414</sup>

115. BSPs also noted problems in delivering programming to subscribers. First, BSPs indicate that they are having problems gaining access to utility poles so that they can build out their systems.<sup>415</sup> Second, BSPs are having difficulty offering service to MDUs, especially in cases where cable operators have exclusive contracts with MDUs.<sup>416</sup> WOW reports difficulties in obtaining franchises due to opposition from incumbent providers.<sup>417</sup> WOW also alleges that incumbent cable operators engage in predatory pricing and marketing discrimination practices.<sup>418</sup> RCN believes that “...clustering of cable ownership is driven principally by the desire to reinforce dominance in a particular market.”<sup>419</sup> Finally, Carolina indicates that, if the Commission does not act to remove these barriers to competition, BSPs will be unable to gain access to capital and thus compete against incumbent cable operators.<sup>420</sup>

### III. MARKET STRUCTURE AND CONDITIONS AFFECTING COMPETITION

#### A. Horizontal Issues in the Market for the Delivery of Video Programming

116. The video programming market is comprised of two separate but related markets: (a) the market for the distribution of multichannel video programming to households, and (b) the market for the

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<sup>410</sup> RCN Comments at 23.

<sup>411</sup> *Id.* at 24.

<sup>412</sup> *Id.* at 9-12.

<sup>413</sup> *Id.* at 12.

<sup>414</sup> *Id.* at 13-16. RCN urges the Commission to establish, either in place of or in addition to the regular review of the exclusivity prohibition, some sort of industry forum on the issue. *See also* Carolina Comments at 10-12; WOW Reply Comments at 7-10. In opposition, cable industry comments indicate that the exclusivity prohibition should be allowed to sunset on schedule because competition is well-established, and because exclusivity contracts “...can serve as a spur to investment, creativity, and responsiveness to emerging audience wishes.” Comcast Reply Comments at 17-22. *See also* Cablevision Reply Comments at 6-7; NCTA Comments at 34-39.

<sup>415</sup> RCN Comments at 16-20; Carolina Comments at 6-7.

<sup>416</sup> RCN Comments at 21.

<sup>417</sup> WOW Reply Comments at 6-7. *See also* RCN Comments at 22-23.

<sup>418</sup> WOW Reply Comments at 10-12.

<sup>419</sup> RCN Comments at 24-25.

<sup>420</sup> Carolina Comments at 5.

purchase of video programming by MVPDs. For purposes of assessing the impact of horizontal concentration, it is appropriate to examine both the national programming market and the local distribution market because cable operators generally acquire programming on the national level and distribute it on the local level through their locally franchised systems.<sup>421</sup> In the distribution market, the buyers are individual households as well as families living in MDUs, and the sellers are MVPDs, including cable operators and other video service providers such as DBS providers. In the market for the purchase of video programming, the buyers are MVPDs, and the sellers are programming networks, studios and programming packagers.<sup>422</sup>

117. In this section, we first review changes in the market for the distribution of video programming, including changes in the level of competition in that market between July 2000 and June 2001. In our discussion of competition in the distribution of video programming to households, we also examine developments unique to MDUs, a significant sub-set of the market. We then review the market for the purchase of video programming by MVPDs, and examine the effects that changes in concentration among MVPDs at the regional and national levels have had on this market in the last year.

### **1. Competitive Issues in the Market for the Distribution of Video Programming**

118. The market for the delivery of video programming to households continues to be highly concentrated and characterized by substantial barriers to entry.<sup>423</sup> These barriers may include: (a) strategic behavior by an incumbent designed to raise its rival's costs, e.g., limiting the availability to rivals of certain popular programming as well as equipment; (b) local and state level regulations, e.g., causing new entrants to incur a delay in gaining access to local public rights-of-way facilities; and (c) technological limitations, e.g., DBS and MMDS line-of-sight problems.<sup>424</sup>

119. While competitive satellite alternatives to the incumbent wireline MVPDs are developing and attracting an increasing proportion of MVPD subscribers, most consumers have limited choices among video distributors. A relatively small percentage of consumers have a second wireline alternative, such as an OVS or overbuild cable system. Among the several wireless technologies used to provide video programming service, DBS is the only wireless technology currently available to a majority of subscribers nationwide. Thus, homes are generally passed by only one wireline cable operator and the two major DBS providers, DirecTV and EchoStar. On October 28, 2001, General Motors Corp. and its subsidiary Hughes Electronics (DirecTV) together with EchoStar announced the signing of definitive agreements that provide for the spin-off of Hughes from GM and the merger of Hughes with EchoStar.<sup>425</sup>

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<sup>421</sup> See *Implementation of Section 11(c) of the Cable Television Consumer Protection and Competition Act of 1992, Horizontal Ownership Limits*, MM Docket No. 92-264, Memorandum Opinion and Order on Reconsideration and Further Notice of Proposed Rulemaking, 13 FCC Rcd at 14477 (1998).

<sup>422</sup> See *1997 Report*, 13 FCC Rcd at 1107-8 for a description of the relevant market.

<sup>423</sup> See Carolina Comments at 4-9, 13; RCN Comments at 16-21, 24-25.

<sup>424</sup> See Carolina Comments at 5-12; RCN Comments at 9-23; Utilicorp, Comments at 4-8. See also *1994 Report*, 9 FCC Rcd at 7550-56 for a description of impediments to competition.

<sup>425</sup> See Hughes, *GM's Hughes Electronics to Merge with EchoStar Communications* (press release), Oct. 28, 2001, at <http://www.hughes.com/ir/pr>.

This transaction is currently pending before the Commission and the United States Department of Justice.<sup>426</sup>

120. Of the 33,000 cable community units nationwide, 419, or approximately one percent have been certified by the Commission as having effective competition as a result of consumers having a choice of more than one MVPD. As we show in the Competitive Response section below, incumbent operators are most likely to respond to competition by reducing their monthly charge for cable programming services and equipment, by offering additional channels, or by offering Internet and other telecommunications services.<sup>427</sup>

121. Several wireless MVPD technologies, including MMDS, SMATV, and DBS, deliver programming to individual households and MDUs, and provide consumers an alternative to incumbent cable systems.<sup>428</sup> While wireless technology in general provides an alternative to some cable subscribers, SMATV and MMDS may not be able to provide services similar to that provided by an incumbent cable operator. For example, the service area covered by a SMATV system usually includes only a small portion of a cable system's franchise area. MMDS systems, on other hand, often serve larger areas than SMATV service, but offer fewer channels and require line-of-sight for reception.

122. The two principal DBS services are presumed to be technically available nationwide, although they may not actually be available to subscribers in MDUs or in households that are not within the line-of-sight of a DBS signal.<sup>429</sup> The SHVIA, which was enacted in 1999, eliminated the prohibition on DBS delivery of local network signals into their local television markets. Since then, DBS operators have responded by offering local-into-local service in many areas. For example, DirecTV states that it currently offers local broadcast channels in 41 markets.<sup>430</sup> The number of markets with local-to-local service provided by DirecTV is expected to increase after the launch of its new spot beam satellite.<sup>431</sup> NCTA notes that this launch together with changes in the DBS operators' sports programming line-up and the ability to offer Internet service are likely to make DBS an even more viable as a competitor to cable.<sup>432</sup> DirecTV claims that about half of its subscribers were cable subscribers at the time they first subscribed to DirecTV, with a majority of those eventually canceling their basic cable service.<sup>433</sup>

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<sup>426</sup> See n. 186 *supra*.

<sup>427</sup> We note that for several reasons cable rates have risen faster than inflation. See ¶ 9 *supra*.

<sup>428</sup> In November 2000, the Commission concluded that MVDDS can operate in the 12.2-12.7 GHz band on a non-harmful interference basis with the incumbent broadcasting satellite service and on a co-primary basis with the non-geostationary satellite orbit fixed satellite service providers. MVDDS could be used to deliver a wide array of video programming, including local television, and data services in both urban and rural areas. The Commission is seeking comments on technical and service rules for licensing the MVDDS. See *New Fixed Satellite Services Order*, n. 227 *supra*.

<sup>429</sup> In addition, consumers in Alaska and Hawaii may not always receive the same service as those in the 48 contiguous states. For example, Hawaii contends that DBS providers have failed to provide full and competitive service equivalent to that provided on the U.S. mainland. See Hawaii Comments at 2-3.

<sup>430</sup> DirecTV Comments at 12.

<sup>431</sup> *Id.* at 2.

<sup>432</sup> NCTA Comments at 6-15; NCTA Reply Comments at 2.

<sup>433</sup> DirecTV Comments at 11.



123. As of June 2001, RCN, which operates a large number of overbuild systems, was offering video service to approximately 460,400 subscribers.<sup>434</sup> In May 2001, SBC reached an agreement to sell its cable subsidiary Ameritech to a startup WideOpenWest.<sup>435</sup> At the time of this transaction, Ameritech was the second largest overbuilder with 310,000 subscribers. Ameritech's departure from the overbuild scene was not an isolated case. Carolina Broadband comments that the number of facilities-based providers have decreased in the past six months. For example, McLeodUSA, WideOpenWest, Utilicom, Seren, Carolina Broadband, American Broadband, and Digital Access have either stopped building new facilities or postponed plans for expansion.<sup>436</sup> However, NCTA contends that several broadband overbuilders and utilities, including RCN, Knology, WideOpenWest, Digital Access, Carolina Broadband, Everest Connection, and Grande Communications, have been able to raise billions of dollars for system development.<sup>437</sup>

124. **Recent Developments in the MDU Market.** The MDU market is a significant segment of many local MVPD markets. MDUs are comprised of a wide variety of high-density residential complexes, including high and low-rise rental buildings, condominiums, and cooperatives.<sup>438</sup> According to one estimate, there are currently 21.4 million MDUs in the U.S. That number is expected to grow to 23.3 million by the year 2005.<sup>439</sup> Historically, cable and SMATV operators were the primary providers of MVPD services to MDU residents. According to one estimate, 20-23 percent of a cable operator's income comes from MDU subscribers.<sup>440</sup> More recently, however, DBS providers have begun to supply programming to operators that serve MDUs and to MDU residents directly.<sup>441</sup> In May 2000, WSNet of Austin, Texas, announced the launch of a new satellite video service designed for private cable and small and rural cable companies. Unlike DBS, WSNet provides over 190 digital channels only to SMATV and other small cable operators who in turn distribute these programming services to their subscribers.<sup>442</sup>

125. During the late 1990s, a number of large SMATV operators, including OpTel, SkyView, and Cable Plus, declared bankruptcy.<sup>443</sup> According to some analysts, these developments have weakened SMATV's stature as a viable competitor to franchised cable operators in the MDU market.<sup>444</sup> Analysts

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<sup>434</sup> Paul Kagan Assocs., Inc., *Top Cable System as of July 2001*, Kagan Cable TV Investor, at 12-13.

<sup>435</sup> See *The Private Market*, 2001 Cable Databook, at 170.

<sup>436</sup> Carolina Comment at 12-13.

<sup>437</sup> NCTA Comments at 20-21.

<sup>438</sup> Townhouses and mobile home communities, nursing homes, hospitals, and hotels may also represent consumer segments in some markets.

<sup>439</sup> Jason Marcheck, *MDUs: Broadband's Wealth of Opportunity*, Private & Wireless Broadband, Dec. 2000, at 16.

<sup>440</sup> Larry Kessler, *Good Night, Gorilla Good Morning, Guerilla*, Private and Wireless Broadband, Mar. 2001, at 12.

<sup>441</sup> DirecTV claims that approximately 20% of its subscribers live in places other than single family homes. See DirecTV Comments at 12. See also ¶76 *supra*.

<sup>442</sup> Joel Schofield, *WSNet Launches Nation's Third Digital Satellite Video Service*, Private & Wireless Broadband, May 2000, at 12.

<sup>443</sup> Larry Kessler, *Winning the Battle and the War: What Does It Take?*, Private & Wireless Broadband, July 2000, at 10.

<sup>444</sup> *Id.*

argue that among other factors, digital video as well as high-speed Internet access is essential to a SMATV operator's survival in the MDU market.<sup>445</sup>

126. A number of SMATV operators are offering bundled video, voice, and data services in order to compete more effectively with traditional cable operators in the MDU market. For example, OnePath Networks, MDU Communications, Everest Broadband Networks and RCN, are providing broadband Internet, telephony, and video services to MDU subscribers throughout the country.<sup>446</sup>

127. ***Competitive Issues in the MDU Market.*** Commenters raise a number of issues that they contend adversely affect their ability to serve the MDU market. These include exclusive contracts, access to MDU inside wiring, and the Commission's over-the-air-reception devices ("OTARD") rules.<sup>447</sup>

128. ***Exclusive Contracts.*** Commenters suggest that exclusive contracts between incumbent MVPDs and MDU owners represent a barrier to entry in the MDU market.<sup>448</sup> According to commenters, exclusive contracts often were entered into before the arrival of alternative MVPDs in the MDU market, and the continued existence of these contracts prevents the MDU owners and/or their tenants from having an opportunity to select among competing providers.

129. Carolina Broadband contends that competitive broadband service providers cannot serve most MDUs because incumbent cable operators have established exclusive agreements with the owners of these MDUs. According to a survey, 80 percent of the MDU units in Charlotte, North Carolina, for example, have committed to long-term agreements with the incumbent cable operator, many of these agreements taking place after Carolina Broadband announced its intent to serve the area.<sup>449</sup> Carolina Broadband contends that its effort to build a high capacity network is threatened by exclusive contracts between incumbent cable operators and MDU owners that exclude the company from serving 30 percent of its target market. It also contends that exclusive contracts are similar to exclusive franchise agreements since both generally drive up new entrant's costs and distort supply and demand relationships.<sup>450</sup>

130. DirecTV argues that MDU residents have limited choices among MVPD providers because exclusive contracts or exclusive "rights of entry" between incumbents and property owners either discourage new entrants or make it impossible for them to enter the market.<sup>451</sup> DirecTV argues that cable operators are able to thwart competition in the MDU market by resorting to exclusive service contracts or exclusive rights to entry that prohibit MDU property owners or residents from obtaining video programming services from an alternative service provider.<sup>452</sup>

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<sup>445</sup> Larry Kessler, *The Piper's Music: When to Play. When to Pay*, Private and Wireless Broadband, Aug./Sept., 2001.

<sup>446</sup> See *Industry News*, Private and Wireless Broadband, Aug./Sept. 2001, at 57 and Feb. 2001 at 45; RCN Comments at 5-6.

<sup>447</sup> Carolina Comments at 8-9; DirecTV Comments at 18-19; RCN Comments at 21; Utilicorp Comments at 7-8;

<sup>448</sup> *Id.*

<sup>449</sup> Carolina Comments at 7.

<sup>450</sup> Carolina, *ex parte* letter, *Telecommunications Services, Inside Wiring, Customer Premises Equipment*, CS 95-184 and WT 99-127, May 15, 2001.

<sup>451</sup> DirecTV Comments at 19.

<sup>452</sup> *Id.*

131. The Independent Multi-Family Communications Council (“IMCC”), on the other hand, contends that under some circumstances exclusive contracts give MDU residents bargaining power to collectively negotiate with several competing MVPDs for a favorable deal in pricing and service.<sup>453</sup> Moreover, citing a study it commissioned, IMCC argues that there is little risk of competitive harm arising from the use of exclusive contracts by SMATV operators.<sup>454</sup> According to IMCC, since the economies of scale associated with SMATV distribution technology are very low, use of exclusive contracts by SMATV operators would not give them a cost advantage over their rivals that would lead to reduced competition and supra-normal profits.<sup>455</sup>

132. Cablevision states that it faces significant and sometimes unfair competition from SMATV operators in the MDU market. According to Cablevision, since SMATV operators traditionally share revenues with building owners, the latter often enter into agreements with SMATV operators to offer SMATV service to building residents either at “below market rates” or “free” as part of the occupants’ rent. Moreover, for buildings under construction, sometimes the SMATV facilities are constructed at the same time, allowing SMATV operators to sign up customers before Cablevision is able to offer service.<sup>456</sup>

133. *Inside Wiring.* RCN contends that access to MDUs remains a serious barrier to entry. More specifically, RCN argues that the Commission’s inside wiring rules are of limited value because an incumbent could avoid them by claiming ownership or right to control.<sup>457</sup> RCN further asserts that delayed Commission decisions regarding access to existing inside cable wiring have thwarted its entry into this market.<sup>458</sup>

134. Carolina Broadband argues that rules allowing equal access to home run wiring must be developed so that consumers can choose among competing providers without imposing unreasonable requirements on property owners.<sup>459</sup> IMCC argues that the Commission could encourage competition in MDU markets by determining value of inside wiring based on depreciated book value of the wire and not on replacement costs.<sup>460</sup> Since the replacement cost is generally higher than depreciated book value,

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<sup>453</sup> IMCC, *ex parte* letter, *Telecommunications Services, Inside Wiring, Customer Premises Equipment*, CS 95-184 and *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Cable Home Wiring*, MM 92-260, May 8, 2001.

<sup>454</sup> *Id.*

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

<sup>456</sup> Cablevision Reply Comments at 2-3.

<sup>457</sup> RCN Comments at 21.

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

<sup>459</sup> Carolina Comments at 8.

<sup>460</sup> IMCC, *ex parte* letter, *Telecommunications Services, Inside Wiring, Customer Premises Equipment*, CS 95-184 and *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Cable Home Wiring*, MM 92-260, May 8, 2001. The Commission in a *Report and Order and Second Further Notice of Proposed Rulemaking*, amended the cable inside wiring rules to enhance competition in the video distribution market. See *Inside Wiring Order*, n. 273 *supra*.

IMCC argues that a purchase price based on replacement cost would discourage new entrants from entering the MDU market.<sup>461</sup>

135. On October 12, 2000, the Commission adopted measures to enhance the ability of competing telecommunications providers to provide services to customers in residential and commercial buildings or other MTEs.<sup>462</sup> The adopted measures included a determination that utilities, including LECs, must afford telecommunications carriers and cable service providers reasonable and nondiscriminatory access to conduits and rights-of-way located in customer buildings and campuses, to the extent such conduits and rights-of-way are owned or controlled by the utility. The Commission also sought additional comments on whether it should extend its cable inside wiring rules to facilitate the use of home run wiring by telecommunications service providers where an incumbent cable provider no longer has a legal right to maintain its home run wiring in the building.

136. *OTARD Rules.* DirecTV asserts that the Commission's OTARD rules should be expanded to cover common areas for MDU residents.<sup>463</sup> On November 20, 1998, the Commission extended the OTARD rules to allow renters to install antennas within their "exclusive use" areas, i.e., apartments, homes, gardens, patios, terraces, and balconies. The rules, however, do not extend to the installation of antennas on common property or on property to which a viewer does not have a right of access.<sup>464</sup> DirecTV states that while the Commission's OTARD rules have encouraged some MDU landlords and owners to use a single dish for reception to prevent "dish clutter," the rule should be extended to common areas so that renters and owners who do not have exclusive use of areas suitable for satellite reception will also be able to receive DBS service.<sup>465</sup>

## 2. Competitive Issues in the Market for the Purchase of Video Programming

137. Buyers in the market for the purchase of video programming are MVPDs, including cable operators and other video programming providers, and the sellers are primarily non-broadcast

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<sup>461</sup> IMCC, *ex parte* letter, *Telecommunications Services, Inside Wiring, Customer Premises Equipment*, CS 95-184 and *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Cable Home Wiring*, MM 92-260, May 8, 2001.

<sup>462</sup> *Promotion of Competitive Networks in Local Telecommunications Markets, Wireless Communications Association International, Inc. Petition for Rulemaking to Amend Section 1.4000 of the Commission's Rules to Preempt Restrictions on Subscriber Premises Reception or Transmission Antennas Designed to Provide Fixed Wireless Service, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Review of Sections 68.104 and 68.213 of the Commission's Rules Concerning Connection of Simple Inside Wiring to the Telephone Network*, WT Docket No. 99-217, CC Docket No. 96-98, CC Docket No. 88-57, First Report and Order and Further Notice of Proposed Rulemaking in WT Docket No. 99-217, Fifth Report and Order and Memorandum Opinion and Order in CC Docket No. 96-98, and Fourth Report and Order and Memorandum Opinion and Order in CC Docket No. 88-57. 15 FCC Rcd 17521 (2000).

<sup>463</sup> DirecTV Comments at 19.

<sup>464</sup> *Restrictions on Over-the-Air Reception Devices: Television Broadcast, Multichannel Multipoint Distribution and Direct Broadcast Satellite Services*, CS Docket No. 96-83, Second Report and Order, 13 FCC Rcd 23874 (1998); *see also Restrictions on Over-the-Air Reception Devices: Television Broadcast, Multichannel Multipoint Distribution and Direct Broadcast Satellite Services*, CS Docket No. 96-83, Order on Reconsideration, 14 FCC Rcd 19924 (1999).

<sup>465</sup> DirecTV Comments at 19.

programming networks.<sup>466</sup> This market tends to be regional or national since programmers seek to reach a much broader audience than could be provided by a local cable franchise area. For example, some programming services are intended for a nationwide audience (e.g., CNN, USA) while others seek a regional audience (e.g., New England Sports Channel).

138. AT&T argues that the Commission should include purchasers of all video programming, and not just multichannel video programming, when considering the market for the purchase of video programming.<sup>467</sup> AT&T argues that broadcast stations and networks compete with MVPDs in the program purchase market as well as in the advertising and program distribution markets. The Commission has recognized AT&T's concern and is addressing this issue in its recently released *Further Notice of Proposed Rulemaking* ("Ownership Further Notice").<sup>468</sup> In that proceeding, the Commission contemplated that over-the-air broadcast networks compete with MVPDs for advertising revenue, and also observed that they are carried as content on MVPD systems. The Commission also sought comments on its portrayal of the program purchase market in that further notice.<sup>469</sup>

#### a. The Regional Market

139. For the past several years, cable operators have engaged in a regional strategy called "clustering." Many of the largest MSOs have concentrated their operations by acquiring cable systems in regions where the MSO already has a significant presence, while giving up smaller holdings scattered across the country. This strategy is accomplished through purchases and sales of cable systems, or by system "swapping" among MSOs.

140. ***Competitive Issues Related to Clustering.*** Commenters contend that clustering of cable systems can create greater economies of scale and scope, and enable cable operators to offer a wider variety of broadband services at lower prices to customers. In addition, commenters contend that clustering enables cable operators to: (a) spread costs over a number of systems and a larger subscriber base; (b) deliver a higher quality of signal to consumers; (c) offer more local and regional programming for consumers; (d) provide better customer service and fewer outages; (e) create more efficient interconnections which enhance educational and governmental uses; (f) develop more attractive joint consumer promotions and discounts with area retailers and others; and (g) increase advertising revenues which can, in turn, be used to offset a portion of programming and system upgrade expenses.<sup>470</sup>

141. In the *2000 Price Survey Report*, using a regression equation, the Commission reported that cable operators that were part of a cluster had, on average, higher monthly rates than operators that

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<sup>466</sup> *1998 Report*, 13 FCC Rcd at 24362.

<sup>467</sup> AT&T Comments at 20.

<sup>468</sup> *Implementation of Section 11 of the Cable Television Consumer Protection and Competition Act of 1992, Implementation of Cable Act Reform Provisions of the Telecommunications Act of 1996, the Commission's Cable Horizontal and Vertical Ownership Limits and Attribution Rules, Review of the Commission's Regulations Governing Attribution of Broadcast and Cable/MDS Interests, Review of the Commission's Regulations and Policies Affecting Investment in the Broadcast Industry, Reexamination of the Commission's Cross-Interest Policy*, CS Docket Nos. 98-82, 96-85, MM Docket Nos. 92-264, 94-150, 92-51 and 87-154, Further Notice of Proposed Rulemaking, 16 FCC Rcd 17312 (2001).

<sup>469</sup> *Id.*, 16 FCC Rcd at 17321-2.

<sup>470</sup> AT&T Comments at 17-18; Comcast Comments at 12-13.

were not part of a cluster (i.e., a positive relationship was found to exist between average monthly rates and clusters).<sup>471</sup> This result may have been due to a lack of data needed to: (a) distinguish between integrated and non-integrated systems, and (b) identify cost factors or the timing of consolidation. AT&T contends that, when it applied the Commission's regression equation to its own 2000 survey data (which represents a small percentage of the total data used in the *2000 Price Survey Report*), the results indicate that a negative relationship exists between clustering and cable prices.<sup>472</sup>

142. Several commenters assert harmful effects of clustering and regional concentration on program distribution.<sup>473</sup> Specifically, these commenters contend that it is likely that cable systems in a large cluster will be linked through a fiber optic network which would enable operators to offer telecommunications services as well as a cost-efficient means of delivering programming to its clustered systems. However, if MSOs have an ownership interest in programming, fiber optic networks may give them an added incentive to "migrate" programming from satellite delivery to terrestrial (fiber optic) delivery because only satellite-delivered programming is subject to the program access rules. Therefore, these commenters contend that a vertically integrated incumbent may be able to prevent competitors from gaining access to certain programming because it is terrestrially delivered.<sup>474</sup>

143. ***Recent Developments in Clustering.*** Since the previous report, cable MSOs have continued to undertake or announce system mergers, acquisitions, divestitures, swaps, and joint ventures in order to create larger regional clusters of contiguous cable systems.<sup>475</sup> Most of these transactions resulted in the expansion of existing regional clusters. For example, Comcast's "Mid-Atlantic Super Cluster" with 4.4 million subscribers includes clusters in Pennsylvania, Maryland, Virginia, the Washington, D.C., metropolitan area, and Delaware.<sup>476</sup> Similarly, AT&T has large clusters in the Chicago, San Francisco/Oakland/San Jose, and Boston areas, with approximately five million subscribers in those three clusters.<sup>477</sup>

144. Between July 2000 and June 2001, a total of 48 transactions were announced having an aggregate value of approximately \$22.5 billion and involving 5.8 million subscribers, virtually all intended to increase the size of existing cable clusters.<sup>478</sup> At the end of 2000, there were 108 clusters with approximately 54 million subscribers compared to 114 clusters and approximately 44 million subscribers at the end of 1999.<sup>479</sup> In the largest cluster size category (over 500,000 subscribers), the number of

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<sup>471</sup> *Id.* 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 Services, and Equipment, MM Docket No. 92-266, Report on Cable Industry Prices ("2000 Price Survey Report"), 16 FCC Rcd 4346 (2001).

<sup>472</sup> AT&T Comments at 19-20.

<sup>473</sup> EchoStar Comments at 6-7; WCA Comments at 2-3; DirecTV Comments at 9-10; RCA Comments at 25.

<sup>474</sup> *Id.*

<sup>475</sup> App. B, Tbl. B-7.

<sup>476</sup> Comcast Comment at 11. *Major Cable TV Systems/Clusters*, 2001 Cable Databook, at 36.

<sup>477</sup> *Major Cable TV Systems/Clusters*, 2001 Cable Databook, at 36.

<sup>478</sup> Paul Kagan Assocs., Inc., *Cable System Sales Summary*, Cable TV Investor, Aug. 11, 2000, at 9; Feb. 5, 2001, at 12; and Aug. 29, 2001, at 9.

<sup>479</sup> See App. C, Tbl. C-2.

clusters increased by 21.4 percent between 1999 and 2000, and the number of subscribers in these clusters increased by 44.1 percent.

145. **System Mergers and Acquisitions.** Several notable mergers and acquisitions occurred during the period from July 2000 to June 2001. In May 2001, WideOpenWest with 200 subscribers agreed to acquire Ameritech and its 310,000 subscribers in Detroit, Chicago, Columbus, and Cleveland.<sup>480</sup> In January 2001, Insight Communications and AT&T completed the transfer of 530,000 subscribers to Insight Midwest JV involving three transactions totaling \$1.5 billion. In February 2001, AT&T announced its intention to sell another 1.4 million subscribers to Mediacom and Charter for approximately \$4 billion.<sup>481</sup>

146. **System Trades.** System-for-system “swaps” or trades enable MSOs to increase the size of their regional clusters while minimizing financial outlays and avoiding capital gains taxes.<sup>482</sup> Since our last report, many of the largest proposed swaps, as measured by number of subscribers, involved AT&T, Comcast, and Adelphia. In December 2000, AT&T and Comcast agreed to swap 770,000 subscribers in the Washington, D.C., area and in cities in Pennsylvania, New Jersey, Florida, Michigan, California, and Illinois. In January 2001, Comcast and Adelphia announced a swap of approximately 450,000 subscribers in Philadelphia, Los Angeles, and Palm Beach.<sup>483</sup>

#### **b. The National Market**

147. **Competitive Issues.** Several commenters raise concerns about the anticompetitive effects of horizontal concentration of ownership on the purchase of programming.<sup>484</sup> EchoStar, for example, argues that large cable operators exert market power on programmers enabling cable operators to dominate the programming market and to purchase programming at anti-competitive terms and conditions.<sup>485</sup>

148. Recently, in *Time Warner Entertainment Co. v. FCC* (“*Time Warner*”), the United States Court of Appeals for the D.C. Circuit reviewed the Commission’s cable television horizontal and vertical ownership limits and attribution benchmarks.<sup>486</sup> In *Time Warner*, the D.C. Circuit found that the Commission’s horizontal rules restrict cable operators’ ability to reach viewers and that the vertical rules curtail their exercise of editorial control over a portion of their channels. The D.C. Circuit held that the Commission did not establish record evidence to support the limits, did not draw the necessary connection between the limits established and the alleged harms of concentration and integration the limits were designed to address, and did not take into account the changing industry market conditions.

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<sup>480</sup> Paul Kagan Assocs., Inc., *SBC Finally Offloads Ameritech Subs*, Cable TV Investor, May 24, 2001, at 6.

<sup>481</sup> Paul Kagan Assocs., Inc., *AT&T Sheds Subs, Mediacom Doubles Its Size*, Cable TV Investor, Mar. 2, 2001, at 4.

<sup>482</sup> *1997 Report*, 13 FCC Rcd at 1118-19.

<sup>483</sup> Paul Kagan Assocs., Inc., *Pending Swaps Finally Close*, Cable TV Investor, Feb. 5, 2001, at 8.

<sup>484</sup> EchoStar Comments at 5; WCA Comments at 3-4; RCN Reply Comments at 3.

<sup>485</sup> EchoStar Comments at 5.

<sup>486</sup> 240 F.3d 1126 (D.C. Cir. 2001).

The D.C. Circuit thus remanded both the horizontal and vertical limits to the Commission for further consideration.<sup>487</sup>

149. On September 13, 2001, the Commission adopted the *Ownership Further Notice* seeking to implement Section 613(f) and to respond to the D.C. Circuit's concerns, by taking a fresh look at the Commission's cable ownership rules affected by the *Time Warner* decision.<sup>488</sup> The *Ownership Further Notice* examines the requirements of Section 613(f) and the underlying legislative history, reviews the relevant markets, as those markets existed in and have evolved since 1992, and considers general regulatory approaches. The *Ownership Further Notice* asks commenters to support or contradict alternative approaches with empirical or theoretical evidence, as well as address the benefits and harms posed by each approach. The objective of the Further Notice is to develop a complete record that ultimately will support a regulatory approach, which fully addresses and takes into account cable operators' market power in today's dynamic communications marketplace.

150. ***Concentration in the National Market for the Purchase of Video Programming.*** Over the past year, cable operators continue to be the primary purchasers in the national market for the purchase of multichannel video programming. Cable operators controlled 78.06 percent of the total MVPD subscribers.<sup>489</sup> At the same time, non-cable MVPDs continued to increase their share of the MVPD market which translates into increased program purchasing in that market. For example, DirecTV's share of the MVPD market increased from 10.28 percent in 2000 to 11.38 percent in 2001. Similarly, EchoStar's share increased from 5.11 percent in 2000 to 6.87 percent in 2001.<sup>490</sup>

151. The top four purchasers of video programming for distribution to the household or MDU market are AT&T (with a share of 16.43 percent of all MVPD subscribers), Time Warner (with a share of 14.34 percent), DirecTV (with a share of 11.38 percent), and Comcast (with a share of 9.53 percent).<sup>491</sup> It should be noted that these percentages are derived from publicly available data and are not the result of application of the Commission's attribution rules.<sup>492</sup> For example, AT&T in a recent letter to the Commission states that it has 21,979,500 MVPD subscribers based on the Commission's attribution rules.<sup>493</sup>

152. The share of subscribers of these top four MVPDs has declined slightly over the past year. In 2000, the four MVPDs with the largest subscribership served 52.70 percent of all MVPD

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<sup>487</sup> *Id.* at 1128, 1130.

<sup>488</sup> *Ownership Further Notice*, 16 FCC Rcd at 17315-9.

<sup>489</sup> *See* App. C, Tbl. C-1.

<sup>490</sup> DirecTV is the third largest MVPD with 8.7 million subscribers; EchoStar is the eighth largest MVPD with 4.3 million subscribers. *See* App. C, Tbl. C-3.

<sup>491</sup> On December 19, 2001, AT&T and Comcast announced an agreement to combine their cable companies to create a new company, AT&T Comcast Corporation. *See AT&T Broadband to Merge With Comcast in \$72 Billion Transaction* (press release), Dec. 19, 2001.

<sup>492</sup> For Commission's attribution rules, *see Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Implementation of Cable Act Reform Provisions of the Telecommunications Act of 1996: Review of the Commission's Attribution Rules*, Report and Order, CS Docket Nos. 98-82, 96-85, 14 FCC Rcd 19014 (1999).

<sup>493</sup> AT&T, *ex parte* letter, MM Docket No. 92-264 and CS Docket No. 99-251, Oct. 22, 2001.



subscribers.<sup>494</sup> In 2001, the top four MVPDs served 51.68 percent of all MVPD subscribers nationwide.<sup>495</sup> However, the share of subscribers served by the top ten MVPDs increased slightly from 83.90 percent in 2000 to 84.30 percent in 2001.

153. To compare and assess the potential for market power resulting from concentration in the market for the purchase of programming over a period of time, we employ the Herfindahl-Hirschman Index (“HHI”).<sup>496</sup> We use the reported MVPD shares to calculate HHI figures.<sup>497</sup> The nationwide purchaser MVPD HHI is 905 – considered “unconcentrated” under the Merger Guidelines.<sup>498</sup> Since, the larger firms in the calculation are more equal in size, the HHI for 2001 is 49 points lower than the HHI of 954 reported last year.<sup>499</sup>

154. Economist Incorporated (“Economists, Inc.”), in a study commissioned by NCTA, contends that the Commission places undue emphasis on “purely structural indicia” of market power, i.e., market share, which leads to misleading results.<sup>500</sup> According to Economist Inc., a firm with a large market share will not be able to exercise market power and raise prices above competitive levels if the smaller competing firms are able to quickly increase their outputs and sales so that the price increase becomes unprofitable for the large firm. Economist Inc. further contends that, since DBS is available nationwide and has virtually unlimited capacity to expand to a larger number of customers, it has the ability to constrain or eliminate market power of larger cable MSOs.<sup>501</sup> The *Ownership Further Notice* seeks comment on whether DBS can in fact provide a constraint on cable’s market power in the market for the purchase of programming. The further notice also seeks comment on whether DBS can provide a constraint on cable’s market power in the markets for the delivery of programming.<sup>502</sup>

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<sup>494</sup> *1998 Report*, 13 FCC Rcd at 24422.

<sup>495</sup> See App. C, Tbls. C-3 and C-4.

<sup>496</sup> *1998 Report*, 13 FCC Rcd at 24363. The HHI is a measure of concentration that is calculated by summing the squared market shares of the sellers in the market. It is a measure of concentration that takes account of the entire firm size distribution. 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. If the firms in the market are similar in size or if there is only one firm, the HHI has no advantage over other measures of concentration such as four-firm or eight-firm concentration ratio. Thus, in local video distribution markets where the incumbent cable operator is the only MVPD, the HHI is of limited use. However, in the market for the purchase of video programming, where both cable and non-cable MVPDs compete, the HHI is sensitive to differences in firm size. In addition, a comparison of HHIs from previous years would show a general trend in ownership concentration.

<sup>497</sup> Since MVPDs generally purchase programming on a “per subscriber” basis, the total license fee paid for a program is based, in part, on the total number of subscribers served by the MVPD. As the subscribership increases, so does the total license fee paid by the MVPD.

<sup>498</sup> The United States Department of Justice and Federal Trade Commission consider markets with HHI below 1000 as “unconcentrated;” markets with an HHI between 1000 and 1800 as “moderately concentrated;” and markets with HHI above 1800 as “highly concentrated.” See *1998 Report*, 13 FCC Rcd at 24363.

<sup>499</sup> *1998 Report*, 13 FCC Rcd at 24422.

<sup>500</sup> Economist Incorporated, *Use and Limitations of Structural Indicia of Market Power*, Aug. 6, 1999, NCTA Comments at App. C.

<sup>501</sup> *Id.* at 10.

<sup>502</sup> *Ownership Further Notice*, 16 FCC Rcd at 17330.

155. To summarize, our examination of national MVPD concentration currently reveals that the national market for the purchase of video programming by MSOs is less concentrated than the local markets in which the distribution of video programming to consumers takes place, which remains highly concentrated. In the regional and national markets for the purchase of video programming, a number of large MSOs are consolidating their subscriber base, although the share of the two largest MSOs (AT&T and Time Warner) has declined during the past year.<sup>503</sup> For example, AT&T's share of MVPD subscribers fell from 19.07 percent in 2000 to 16.43 percent in 2001. Time Warner's share changed slightly from 14.92 percent in 2000 to 14.34 percent in 2001.<sup>504</sup>

## **B. Vertical Integration and Other Programming Issues**

### **1. Status of Vertical Integration**

156. This section updates the status of vertically integrated video programming networks in the MVPD market. Vertical integration occurs where a video programming distributor has an ownership interest in a video programming supplier or vice versa. These vertical relationships may have beneficial effects,<sup>505</sup> or they may deter competitive entry in the video marketplace and/or limit the diversity of programming.<sup>506</sup>

157. Since our last *Report*, the total number of programming networks has grown and cable operators continue to consolidate and develop new ownership interests. This year, the proportion of vertically integrated channels is the same as last year, after several years of decline. In 2001, there were 294 satellite-delivered national programming networks, an increase of 13 networks since 2000. Of the 294 networks, 104 networks, representing approximately 35 percent, were vertically integrated with at least one cable MSO.<sup>507</sup> Therefore, the ratio of vertically integrated channels has remained unchanged since 2000 when 99 of 281, or 35 percent, of national programming networks were vertically integrated.<sup>508</sup>

158. Four of the top seven cable MSOs hold ownership interests in satellite-delivered national programming networks. One or more of these companies has an interest in 52 of the 104 vertically

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<sup>503</sup> See App. C, Tbl. C-3.

<sup>504</sup> By squaring market shares, the HHI weighs the values for large companies more heavily than small companies. Also, the HHI increases with increasing inequality among any given number of companies. See F.M. Scherer, *Industrial Market Structure and Economic Performance*, Rand McNally College Publishing Company, 1980, at 58.

<sup>505</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>506</sup> See 1995 *Report*, 11 FCC Rcd at 2135; *Implementation of Section 11(c) of the Cable Television Consumer Protection and Competition Act of 1992 Vertical Ownership Limits*, MM Docket 92-264, Memorandum Opinion and Order on Reconsideration of the Second Report and Order, 10 FCC Rcd 7364, 7365 (1995).

<sup>507</sup> We count each unique programming service of a multiplexed package separately. We do not, however, count services that are not unique, as in a multiplexed programming service that is merely time shifted. See 1998 *Report*, 13 FCC Rcd at 24376. See also 2000 *Report*, 16 FCC Rcd at 6079.

<sup>508</sup> These figures are based on the best available information recently researched for the 2001 *Report* and differ from a recently reported figure which was estimated based on data from the 2000 *Report*. See *Ownership Further Notice*, 16 FCC Rcd at 17350.

integrated national satellite-delivered programming networks.<sup>509</sup> These four companies are Cox Communications, which has interests in 24, or eight percent of all national programming networks; AOL Time Warner, which has an ownership interest in 39, or 13 percent of all national programming networks; Comcast, which has ownership interests in 17 networks, which account for six percent of all national programming networks; and Cablevision, through its programming subsidiary, Rainbow Media, which owns ten national programming networks, just over three percent of all national programming networks. On August 10, 2001, Liberty Media split off from AT&T Corporation and is now an independent company.<sup>510</sup> However, through its ownership of Cablevision of Puerto Rico, it remains a small cable system owner. It has interests in 66 national networks, or 23 percent of all programming networks.<sup>511</sup>

159. Vertical integration is not only associated with the largest cable system operators, but also the programming networks with the largest number of subscribers. Currently, nine of the top 20 video programming networks (ranked by subscribership) are vertically integrated with a cable MSO. This figure remains unchanged from 2000.<sup>512</sup> Additionally, it appears that a significant amount of video programming is controlled by only 14 companies, including cable MSOs, broadcasters, and other media entities.<sup>513</sup> Almost all (i.e., 18) of the top 20 programming networks in terms of subscribership are owned by one or more of these 14 companies, with nine of these networks vertically integrated with cable MSOs.<sup>514</sup> In addition, seven out of the top 20 video programming networks ranked by prime time ratings are vertically integrated with cable MSOs.<sup>515</sup>

160. This year we found 51 programming services that have been planned but are not yet operational, a 23 percent decrease from the *2000 Report's* count of 66 planned services.<sup>516</sup> As we reported last year, analog channel capacity is increasingly scarce and may account for the slow down in the launching of new programming networks.<sup>517</sup> The planned services count includes some overlap from

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<sup>509</sup> The top seven MSOs are AT&T Broadband & Internet Services, AOL Time Warner, Comcast Cable Communications, Charter Communications, Cox Communications, Adelphia Communications, and Cablevision Systems. See NCTA, *Industry Overview, Cable Television Developments 2001*, at 17.

<sup>510</sup> Liberty Media Corp., *Liberty Media Corporation Announces Split Off From AT&T Corp.; Begins Trading on New York Stock Exchange Under the Symbols LMC.A and LMC.B* (press release), Aug. 10, 2001.

<sup>511</sup> If we did not count Liberty Media as being vertically integrated, the ratio of vertically integrated channels would decrease from 35 percent in 2000 to 31 percent in 2001. See App. D., Tbl. D-5.

<sup>512</sup> App. D, Tbl. D-6. See also *2000 Report*, 16 FCC Rcd at 6138.

<sup>513</sup> The 14 companies are: AOL Time Warner, Cablevision, Comcast, Cox, Disney, E. W. Scripps Co., General Electric, Hearst, Liberty Media, MGM, Newhouse, News Corp., Viacom, and Vivendi. See Paul Kagan Assocs., *Major Owners of Cable Networks: Sept. 2001*, Cable Program Investor, Sept. 11, 2001, at 4.

<sup>514</sup> C-SPAN, C-SPAN2, WGN, and The Weather Channel are the four unaffiliated programming networks among the top 50 programming networks. Cable affiliates provide 95 percent of the funding for, but have no ownership or program control interests in C-SPAN and C-SPAN2. DBS licensees provide the other 5 percent of funding, and also have no ownership or program control interests. None of the 14 companies listed in footnote 513 *supra* have any ownership interest in WGN or The Weather Channel. See Paul Kagan Assocs. *Network Census: July 30*, Cable Program Investor, Sept. 11, 2001, at 10.

<sup>515</sup> App. D, Tbl. D-7.

<sup>516</sup> See App. D, Tbl. D-4. See also *1999 Report*, 15 FCC Rcd at 1112.

<sup>517</sup> *2000 Report*, 16 FCC Rcd at 6080. See also Andy Grossman, *High Stakes in Vegas, Court TV's Royal Analog Flush*, Cablevision, July 9, 2001, at 8.

previous years because it can often take several years from the announcement of a new programming network to its launch and initiation of service. For example, several of the 66 planned services counted in previous *Reports* have been launched during the past year and are now operating, while others have been aborted for various reasons.<sup>518</sup>

## 2. Other Programming Issues

161. As in previous years, this year's *Notice* requested comment on a number of programming issues apart from vertical integration and the status of existing and planned programming services. Among these issues, we asked about the effectiveness of our program access, program carriage, and channel occupancy rules that govern the relationships between cable operators and programming providers. We also requested information about local and regional channels, including sports and news services, public, educational and governmental ("PEG") access channels, packaging of programming services, and electronic programming guides ("EPGs"). In this section we address these issues.

162. ***Regulatory Issues Relating to Program Access and Carriage Rules.*** The Commission's rules on competitive access to cable programming prohibit unfair and discriminatory practices by vertically integrated cable operators.<sup>519</sup> The rules seek to promote competition and diversity in the multichannel video programming market by preventing vertically integrated programming suppliers from favoring affiliated video distributors over unaffiliated MVPDs in the sale of satellite-delivered programming.<sup>520</sup> The program access rules apply to cable operators and to programming vendors that are affiliated with cable operators and deliver video programming via satellite to an MVPD. The rules prohibit any cable operator that has an attributable interest in a satellite cable programming vendor from improperly influencing the decisions of the vendor with respect to the sale or delivery, including prices, terms, and conditions of sale or delivery, of satellite-delivered programming to any competing MVPD. The rules also prohibit vertically integrated satellite programming distributors from discriminating in the prices or terms and conditions of sale of satellite-delivered programming to cable operators and other MVPDs. In addition, cable operators generally are prohibited from entering into exclusive distribution arrangements with vertically integrated programming vendors. The Commission has declined to apply the program access requirements to terrestrially-delivered programming.<sup>521</sup>

163. The prohibition on exclusive contracts in the program access law ceases to be effective on October 5, 2002, unless the Commission finds that the prohibition continues to be necessary to preserve and protect competition and diversity in the distribution of video programming.<sup>522</sup> On October

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<sup>518</sup> Compare, for example, App. D, Tbl. D-4 *infra*, with 2000 *Report*, 16 FCC Rcd at 6131, 1999 *Report*, 15 FCC Rcd at 1112, and 1998 *Report*, 13 FCC Rcd at 24442.

<sup>519</sup> 47 C.F.R. §§ 76.1000-76.1003. See also 47 U.S.C. § 536(a)(2); 47 U.S.C. § 548(a)(2). The program access rules apply to OVS operators and common carriers in the same manner as they apply to cable operators. 47 C.F.R. §§ 76.1004, 76.1507.

<sup>520</sup> 47 U.S.C. § 548.

<sup>521</sup> *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Petition for Rulemaking of Ameritech New Media, Inc. Regarding Development of Competition and Diversity in Video Programming Distribution and Carriage*, CS Docket No. 97-248, RM No. 9097, Report and Order ("*Program Access Order*"), 13 FCC Rcd 15822, 15856-7 (1998).

<sup>522</sup> 47 U.S.C. § 548(c)(5).

11, 2001, the Commission adopted a *Notice of Proposed Rule Making* to begin its review of the rule.<sup>523</sup> In the *Notice* in this proceeding, we sought comment on the methods we should use to evaluate whether this provision still is needed, and on other issues related to the availability of vertically integrated programming.<sup>524</sup>

164. Cable's competitors, including SBCA, Utilicorp, and WCA, are opposed to the sunset of the prohibition on exclusivity and some suggest that the program access rules should be broadened to include terrestrially-delivered programming.<sup>525</sup> Several commenters maintain that, despite the presence of the program access rules, lack of access to programming, especially sports programming, remains a significant barrier to entry and an impediment to the successful development of a competitive MVPD business.<sup>526</sup> In particular, WCA maintains that the cable industry's conduct suggests that the programming most in demand will become unavailable if the ban on exclusivity is relaxed.<sup>527</sup>

165. DirecTV asserts that the program access rules are more important now than ever and that the Commission should make them even more stringent.<sup>528</sup> It urges the Commission to examine the October 5, 2002, sunset on the prohibition on exclusive contracts in the program access rules in light of technical advances that have diminished the costs of terrestrial delivery and in light of continued cable clustering which facilitates terrestrial delivery.<sup>529</sup>

166. Cable television operators oppose the extension of the program access rules. NCTA disputes WCA's assertions and points to the success and continued growth of DBS and the increase in competition over the past five years to demonstrate that the program access rules exclusivity provisions have served their purpose and should be allowed to sunset.<sup>530</sup> NCTA asserts that the current MVPD landscape is competitive and surpasses anything that Congress or the Commission could have imagined in 1992. NCTA also opposes any expansion to the scope of the current rules and dismisses concerns related to the "terrestrial migration" of channels from satellite delivery to terrestrial delivery.<sup>531</sup> NCTA points out that DBS has had exclusive rights to some major league sports packages, concerts, and other programming. It likens these contracts to the development of cable exclusive terrestrially-delivered programming.<sup>532</sup>

167. Cablevision states that there is a wide variety of programming available and that the program access rules are no longer necessary.<sup>533</sup> Comcast asserts that the program exclusivity rules

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<sup>523</sup> See *Program Access NPRM*, n. 213 *supra*.

<sup>524</sup> *Notice*, 16 FCC Rcd at 13333, 13346.

<sup>525</sup> SBCA Comments at 9; Utilicorp Comments at 8; WCA Comments at 4-8.

<sup>526</sup> Carolina Comments at 12; EchoStar Comments at 11-12; RCN Comments at 9-13; SBCA Comments at 9.

<sup>527</sup> WCA Comments at 5.

<sup>528</sup> *Id.* at 9-10.

<sup>529</sup> DirecTV Comments at 10

<sup>530</sup> NCTA Comments at 39.

<sup>531</sup> *Id.*

<sup>532</sup> NCTA Comments at 38-39.

<sup>533</sup> Cablevision Reply Comments at 7.

pertain to marketplace conditions that no longer exist. It argues that exclusive contracts are commonplace in the communications industry, and that such arrangements spur investment, creativity, and responsiveness to consumer demand.<sup>534</sup>

168. Comcast also suggests criteria for the Commission to apply in its proceeding to evaluate the program access rules. These criteria are: (a) the marketplace benefits of permitting program exclusivity for satellite-delivered programming in which a cable operator has a financial interest; (b) the evolution of the MVPD marketplace since 1992; (c) the extent to which exclusive agreements have been used successfully by large non-cable MVPDs; (d) the lack of any basis for constraining exclusivity in cable contracts for satellite-delivered cable programming while not constraining exclusivity in DBS contracts; (e) whether sufficient alternative programming networks exist to provide competition if certain satellite-delivered networks enter into exclusivity agreements; and (f) whether the Commission would have the tools to prevent discrimination, unfair methods of competition, or other unfair acts by vertically integrated satellite programming networks against competing MVPDs.<sup>535</sup> RCN suggests that the Commission form an industry forum among MVPDs, programming providers, and other interested parties to create an interactive dialogue to evaluate program access issues.<sup>536</sup>

169. In 1998, in the *Program Access Order*, the Commission found “no indications at this time that terrestrial delivery of programming formerly delivered by satellite is a significant competitive problem.”<sup>537</sup> Several commenters now assert that access to popular programming, including terrestrially-delivered programming, is vital and more important than ever.<sup>538</sup> Carolina recommends that the Commission expand the program access rules to encompass any method of delivery. Moreover, it suggests that the rules should cover content delivered from all platforms, such as the Internet, interactive program guides, VOD, and ITV.<sup>539</sup>

170. Pursuant to section 613(f) of the Communications Act,<sup>540</sup> the Commission also adopted channel occupancy rules that restricted the number of channels on a cable system that may be occupied by programmers affiliated with the owner of the system.<sup>541</sup> On March 3, 2001, the United States Court of Appeals for the D.C. Circuit reversed and remanded Commission’s channel occupancy limits.<sup>542</sup> Currently, the Commission is seeking comment on, among other things, how changes in the MVPD market and in the level of vertical integration for cable MVPDs may have affected MSOs’ ability to favor affiliated over unaffiliated programming.<sup>543</sup> Given the changes in the marketplace, in the *Ownership Further Notice*, the Commission requests comment on how to fashion meaningful and relevant channel occupancy limits.

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<sup>534</sup> Comcast Reply Comments at 17-18.

<sup>535</sup> *Id.* at 21.

<sup>536</sup> RCN Comments at 14-15.

<sup>537</sup> *Program Access Order*, 13 FCC Rcd at 15856-7.

<sup>538</sup> Carolina Comments at 11; DirecTV Comments at 9; RCN Comments at 14.

<sup>539</sup> Carolina Comments at 11.

<sup>540</sup> Section 613(f) was added to the Communications Act as part of the 1992 Cable Act. 47 U.S.C. § 533(f).

<sup>541</sup> 47 C.F.R. § 76.504. *See 1994 Report*, 9 FCC Rcd at 7521.

<sup>542</sup> *Time Warner Entertainment Co. v. FCC*, 240 F.3d 1126 (D.C. Cir.2001).

<sup>543</sup> *See Ownership Further Notice*, n. 468 *supra*.

171. **Sports Programming.** Regional sports programming continues to be an important segment of programming for all MVPDs. According to RCN, sports programming is critical to the success of any cable television system.<sup>544</sup> Of the 80 regional cable channels counted in this year's report, 29, or 36 percent, are sports channels.<sup>545</sup>

172. The most widely distributed sports programming network, ESPN, which is owned by Disney, reaches 81 million television households through a variety of delivery technologies. While ESPN dominates national sports programming, regional sports distribution is dominated by Fox Sports Net, which owns 69 percent (20 of 29) of all regional sports networks. Fox Sports Net, jointly owned by News Corp. and Cablevision, reaches 77 million television households.<sup>546</sup> Both News Corp. and Disney also have interests in sports teams and sports venues.

173. Commenters assert that such vertical integration, especially with important sports programming, gives these programmers incentives to act as gatekeepers and engage in unfair methods of controlling access to sports programming.<sup>547</sup> Commenters note that vertically integrated entities may have an incentive to shift regional sports networks from satellite to terrestrial distribution and thereby avoid the ambit of program access rules.<sup>548</sup> In addition, commenters allege that where a regional sports network is non-vertically integrated, a video programming distributor may enter into an exclusive contract with the program provider which deprives rivals of the programming.<sup>549</sup> RCN also alleges that clustering has an impact on access to sports programming.<sup>550</sup> In the *1999 Report*, we noted that because most sports programming affiliate fees are based on subscriber volume, only well clustered, large MSOs can take full advantage of programming discounts.<sup>551</sup>

174. DirecTV lists 23 regional sports networks (including 17 Fox Sports Networks) that are carried on its system.<sup>552</sup> DirecTV carries regional sports networks in every regional sports market except Philadelphia where it was refused access to Comcast's SportsNet.<sup>553</sup> EchoStar states that exclusivity deals

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<sup>544</sup> RCN Comments at 13.

<sup>545</sup> See App. D, Tbl. D-3.

<sup>546</sup> NCTA, *Regional Cable Networks*, Cable Television Developments 2001, at 174 - 200.

<sup>547</sup> RCN Comments at 9-16.

<sup>548</sup> See ¶ 162 *supra* for a more detailed description of program access.

<sup>549</sup> Carolina Comments at 10-11; RCN Reply Comments at 4.

<sup>550</sup> RCN Comments at 22-23.

<sup>551</sup> *1999 Report*, 15 FCC Rcd at 1060. See also R. Thomas Umstead, *Consolidation Blues*, Cablevision, June 28, 1999, at 39.

<sup>552</sup> DirecTV Comments at Exhibit A.

<sup>553</sup> *Id.* See also *Application for Review of Orders of the Cable Services Bureau Denying Program Access Complaints*, CSR 5122-P and CSR 5244-P, Memorandum Opinion and Order, 15 FCC Rcd at 22802 (2000). This Order consolidates several proceedings involving Comcast, DirecTV, and EchoStar. In separate proceedings, DirecTV and EchoStar filed program access complaints alleging that Comcast violated sections 628(b) and (c) of the Communications Act and the Commission's regulations by engaging in discrimination and unfair practices in the distribution of satellite cable programming. The Cable Services Bureau denied the complaints. Subsequently, DirecTV and EchoStar each requested Commission review; the Commission consolidated the proceedings and denied the applications for review.

between video programming distributors and sports leagues are “detrimental to subscribers” who cannot get such sports programming from a DBS company.<sup>554</sup> Where a regional sports channel is non-vertically integrated, a cable MSO may enter into an exclusive contract with the program provider. Alternatively, Comcast notes that DirecTV is not required to make its *NFL Sunday Ticket* package available to any other MVPD provider, and that it indeed does not make it available to any Comcast cable system.<sup>555</sup>

175. **News Programming.** Cable systems have carried local news services since at least 1986, when Cablevision launched News 12 Long Island. This year, of the 80 regional programming networks counted, 36 percent (29 networks) are regional news networks. Unlike sports programming, regional and local news networks have a more diverse ownership. Some regional news networks are vertically integrated with cable MSOs, but many are not.<sup>556</sup>

176. Most regional news networks cover a single city or other limited geographic market, or subsections of that market. There are at least seven local news networks in separate sections of the New York City area.<sup>557</sup> A handful of regional news networks, however, have elected to broaden their coverage. Statewide news channels are operating in Florida, Massachusetts, Texas, and Ohio. New England Cable News (“NECN”) is the oldest statewide network and the most widely distributed regional news network. NECN reaches more than 2.5 million households, approximately 64 percent of cable homes in the six-state region it serves. In the Boston market, the network can be seen in 92 percent of cable homes.<sup>558</sup> However, not all regional news networks are success stories. BayTV News Network in San Francisco, California, reached 1.4 million homes with programming that featured local news, high-school sports, and public affairs. However, viewership remained low and it ceased operating on July 31, 2001.<sup>559</sup> Another California news network, Orange County Newschannel, which served 177,000 homes with local news, sports, traffic, and weather, ceased its operations on September 7, 2001, due to declining advertising sales and continued operating losses over the past 22 months.<sup>560</sup>

177. **PEG Programming.** Public, educational, and government (“PEG”) channel set-asides often are required on cable systems by local franchising authorities.<sup>561</sup> Approximately 15 percent of all cable systems carry PEG programming.<sup>562</sup> Cable operators do not have ownership interests in PEG access programming, although some franchise agreements require that they provide services, production

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<sup>554</sup> EchoStar Comments at 11.

<sup>555</sup> Comcast Reply Comments at 18.

<sup>556</sup> Cablevision, the seventh largest MSO, owns news networks, including MSG Metro Traffic and Weather in New York and the News 12 group of regional news services in Connecticut, New Jersey, and Westchester County and Long Island, New York. *See also* App. D, Table D-3.

<sup>557</sup> App. D. Tbl. D-3.

<sup>558</sup> Steve Sullivan, *NECN Comes Into Its Own*, *Broadcasting & Cable*, May 8, 2000, at 52.

<sup>559</sup> Linda Haugsted, *AT&T Pulls the Plug on BayTV News Network*, *Multichannel News*, July 9, 2001, at 15.

<sup>560</sup> Linda Haugsted, *Adelphia to Shut Down OCN*, *Multichannel News*, July 31, 2001, at [http://www.tvinsite.com/index.asp...print\\_page&doc\\_id=3931&articleID=](http://www.tvinsite.com/index.asp...print_page&doc_id=3931&articleID=).

<sup>561</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>562</sup> <http://www.alliancecm.org/about/info.htm>.



facilities, and equipment for the production of local programming. PEG programming is not, therefore, considered vertically integrated.

178. PEG channels are intended to provide community specific information. Since the September 11, 2001, terrorist attacks in New York City and Washington, D.C., many PEG channels are taking part in keeping the public informed about recent events and recovery efforts. Across the country, PEG channels are providing bulletin boards on blood drives, church services, counseling sessions, Web sites, local school activities, call-in programs, civil liberties studies, local civic meetings, and local governmental activities.<sup>563</sup> In addition to PEG channels, some cable operators are also providing local and regional sports, weather, and news programming.<sup>564</sup>

179. In March 1999, Cablevision declined to air a program on its PEG channels in Oyster Bay, New York, when the program *American Defense Monitor* offered transcripts of the program for \$5.00 or tapes for \$19.95. Cablevision required the programmer to delete the 25-second closing segment which made the offer. The producer complied, but later filed suit in district court claiming that Cablevision was trying to control programming content, thus violating the 1984 Cable Act.<sup>565</sup> The district court found that Cablevision was within its rights to refuse to air a program that included solicitation for its tapes of the show.<sup>566</sup> On August 16, 2001, the U.S. Court of Appeals for the Second Circuit vacated and remanded the lower court's decision.<sup>567</sup> Members and representatives of the industry are concerned that the Appeals Court decision will undermine the social purposes of PEG channels.<sup>568</sup>

180. **Packaging of Cable Programming Services.** In the *Notice*, we sought information on the extent to which MVPDs offer or plan to offer consumers programming choices on an "a la carte" or individual channel basis rather than in tiers of channels. Currently, the majority of programming is offered in tiers. Although some programming is still being offered a la carte, MVPDs are not vigorously marketing such services.

181. In the *2000 Report*, we reported that the sunset of cable rate regulation, digital upgrades, and the resulting ability to deliver more channels of programming that could enable greater flexibility for cable operators in packaging programming channels did not result in a trend to do so.<sup>569</sup> Although digital services are offering various options for channel packages and a la carte tiers, a trend toward more flexible packaging appears to be in the packaging of services, rather than the packaging of channels. For example, in the Boston market, AT&T offers various purchasing plans. A customer can save up to \$20.90 per month by subscribing to standard video, digital video, cable Internet service, and local

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<sup>563</sup> E-mail from Bunnie Riedel, Executive Director, Alliance for Community Media, Oct. 15, 2001. In Sacramento, California, volunteers created messages of sympathy and messages in honor of search and rescue personnel; in Multnomah, Oregon, members of the local Muslim Community Center hosted a call-in program; and in Summit, New Jersey, PEG channels covered local prayer services and ran an emergency bulletin board.

<sup>564</sup> NCTA Comments at 30.

<sup>565</sup> 47 U.S.C. § 531.

<sup>566</sup> *Goldberg v Cablevision Systems Corp.*, 69 F.Supp.2<sup>nd</sup> 398, 399 (E.D.N.Y. 1999).

<sup>567</sup> *Goldberg v. Cablevision Systems Corp.*, No. 99-9411, 2001 WL913555 (2<sup>nd</sup> Cir. Aug. 14, 2001).

<sup>568</sup> Joe Estrella, *Court Overrules Cablevision's PEG Editing*, *Multichannel News*, Aug. 27, 2001, at 22.

<sup>569</sup> *2000 Report*, 16 FCC Rcd at 6085.

telephone service; up to \$10.95 per month by subscribing to standard video, digital video, and local telephone service; or, up to \$4.00 per month by subscribing to two of the four service offerings.<sup>570</sup>

182. In Lexena, Kansas, Everest Connections Corporation offers four service packages to its 4,100 plus subscribers in addition to its a la carte offerings. Basic cable, the digital tier, and one local telephone line is available for \$49.95 per month. The monthly rate for basic cable, the digital tier, a premium channel, a local telephone line, and 256 kbps Internet downstream is \$76.95. Basic cable, the digital tier, two premium channels, a local exchange line, ten custom calling features, voice mail, and 1.5 Mbps Internet downstream is priced at \$99.95 per month. The fourth package consists of basic cable, the digital tier, HBO, Cinemax, Showtime, Starz, Encore, ten custom calling features, high-speed Internet, voice mail with increased greeting, message and storage capabilities, plus home/guest mail box features for \$129.95 per month.<sup>571</sup>

183. Comcast credits digitization for its ability to provide a wide variety of packages and services to its subscribers.<sup>572</sup> It states that today it routinely offers packages of digital video channels, PPV channels, and VOD as well as the analog packages that it has historically provided. It states that service providers are able to provide their customers with many packaged services such as multichannel video services, telephone services, and high-speed Internet services as a single offering, or with prices for any one group of services discounted for those who buy two or more services. All sizes and types of MVPDs are continuing to provide subscribers with bundles of services.

184. **Programming Costs.** The Commission's most recent report on cable industry prices ("*2000 Price Survey Report*") asked cable operators to describe factors that led to changes in their rates. Competitive and noncompetitive cable operators attributed 44 percent and 41 percent, respectively, of their rate increases to increases in programming costs.<sup>573</sup>

185. According to Comcast, the costs of acquiring video programming over the past two years has continued to escalate. Comcast states that its programming costs have increased by 13 percent to 15 percent over the past two years. It states that some services have increased by as much as 33 percent. It notes that ESPN's rates have increased at the rate of 20 percent per year for the last four years. Comcast also points out that increases in sports licensing fees continue to be a cause of price increases for sports channels, even though the ratings for some sports channels are declining.<sup>574</sup>

### C. Technical Issues

186. Cable operators and other MVPDs continue to develop and deploy advanced technologies, to increase capacities and enhance the capabilities of their transmission systems.<sup>575</sup> These technologies allow MVPDs to deliver additional video options and other services to their subscribers.<sup>576</sup>

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<sup>570</sup> AT&T Comments at 25.

<sup>571</sup> Utilicorp Comments at 3.

<sup>572</sup> Comcast Comments at 7-8.

<sup>573</sup> Inflation, channel additions, system upgrades, and equipment costs were also said to account for a large portion of rate increases. See *2000 Price Survey Report*, 16 FCC Rcd at 4346.

<sup>574</sup> Comcast Comments at 14.

<sup>575</sup> See *2000 Report*, 16 FCC Rcd at 6087-8.

<sup>576</sup> See, e.g., NCTA Comments at 31-32; DirecTV Comments at 16-17.

In addition, cable operators continue to rebuild their cable plants and to upgrade their facilities for bandwidth expansion through other technical means, such as the electronic component upgrading of existing amplifiers, in order to offer more video programming and other services.<sup>577</sup> In the last year, there have been a number of developments concerning navigation devices and cable modems that are used to access the range of services offered by MVPDs. Most notably, cable operators are favoring less powerful and less expensive set-top boxes, such as Motorola's DCT 2000 and Scientific Atlanta's Explorer boxes.<sup>578</sup> These so-called "thin" boxes would likely require more processing power at the headend or nodal sites to accomplish the same functionalities of the more powerful boxes, such as Motorola's DCT 5000 or the Scientific Atlanta's Explorer 5000 boxes ("thick boxes"). It remains unclear, however, whether the industries have modified their plans for advanced services around these thin boxes. In this section, we address interactive television technologies and update the information provided in the *2000 Report* regarding navigation devices and cable modems.<sup>579</sup>

### 1. Interactive Television

187. Interactive television ("ITV") services provide, or have the potential to provide, a wide range of services, including VOD, e-mail, TV-based commerce ("e-commerce"), Internet access, PVR functionality, programming-related content, and electronic couponing.<sup>580</sup> In the last year, cable operators have not initiated large-scale ITV service rollouts, focusing instead on upgrading their systems to digital service and rolling out cable modem service.<sup>581</sup> One ITV service to which MSOs have devoted more attention this year is VOD, which qualifies as interactive because the consumer chooses when to buy the programming and has "VCR-like" control over the viewing experience.<sup>582</sup> A variation of this service is subscription VOD, which enables the impulse viewing of a library of programming with full "VCR-like" functionality, but for a subscription fee. This model is in contrast to the more traditional pay-per-view requirement of ordering and paying for programming a la carte with the PPV purchase.<sup>583</sup> According to one analysis, VOD will generate revenues of more than \$65 million by year-end 2001; \$420 million in 2002; \$970 million in 2003; \$1.43 billion in 2004; and will reach \$1.98 billion by year-end 2005.<sup>584</sup>

188. As we discuss in detail above,<sup>585</sup> many of the top MSOs are conducting trials of VOD or have moved to commercial offerings in some markets. Several MSOs also have launched other

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<sup>577</sup> *1999 Report*, 15 FCC Rcd at 1067.

<sup>578</sup> See Michael Lafferety, *Taking a Look at the Thick and the Thin of It*, CED, Sept. 2001, at 29-44.

<sup>579</sup> See *2000 Report*, 16 FCC Rcd at 6088-6092.

<sup>580</sup> *2000 Report*, 16 FCC Rcd at 6088. See also Michael Grotticelli and Ken Kerschbaumer, *Slow and Steady*, *Broadcasting & Cable*, July 9, 2001, at 34-38 ("Grotticelli").

<sup>581</sup> *Grotticelli* at 34-38. See also Andy Grossman, *GMs on Hot Seat to Add Cash Flow; Cable Executives Say Digital Cable and Highspeed Data are Keys to Growth*, *Multichannel News*, June 4, 2001.

<sup>582</sup> Cable operators use VOD servers located at the cable headend to manage VOD streams. The principal VOD server vendors are Concurrent Computer, Diva, SeaChange, and nCube.

<sup>583</sup> George Mannes, *Video on Demand Tests Begin as Cable Firms Seek Growth Channels*, *TheStreet.com*, June 8, 2001.

<sup>584</sup> Yankee Group, *Video-on-Demand Will Generate Revenues of Nearly \$2 Billion in 2005* (press release), June 25, 2001.

<sup>585</sup> See ¶¶ 40, 41 *supra*.

interactive services in addition to VOD. In September 2001, Cablevision launched its “iO: Interactive Optimum” service in select areas of western Long Island, New York, providing VOD, an interactive programming guide, expanded digital programming, digital music, niche video content, two-way interactive programming, and e-mail.<sup>586</sup> Insight Communications has launched VOD and an information service called Local Source throughout its Indiana, Kentucky, and Ohio markets.<sup>587</sup> In September 2001, the company launched its “Insight Digital Mall,” an electronic mall of 40 national and local stores, which, once an electronic wallet account has been established, allows Insight subscribers to purchase select goods and services directly through their televisions.<sup>588</sup> Charter is incorporating Microsoft’s Advanced TV software on Motorola DCT-5000 set-tops in order to offer customers Internet-based streaming audio and video, e-mail, VOD, interactive local and national news, and high-speed Internet access.<sup>589</sup>

189. As we reported last year, DBS operators and broadcasters also have entered the ITV market.<sup>590</sup> In addition to rolling out interactive programming guides, DBS operators are integrating PVR technology into their subscriber equipment. DirecTV continues to add features to its “DirecTV Interactive” service launched in October 2000, including on-demand stock quotes, sports information, and interactive e-commerce.<sup>591</sup> In addition, DirecTV has integrated TiVo and UltimateTV PVR platforms into certain of its set-top boxes. EchoStar has introduced an upgraded digital receiver, which enables it to offer enhanced programming as well as digital video recording capabilities.<sup>592</sup> The four major television

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<sup>586</sup> Cablevision Systems Corp., *Cablevision Introduces iO: Interactive Optimum, Its Suite of New Digital Services in Western Long Island* (press release), Sept. 27, 2001. Among the two-way offerings, the service includes MSG Game Director, which allows subscribers to control their view of live sporting events taking place at Madison Square Garden; PhotoNeTV, which allows customers to create slide shows of personal photos directly on the television screen for viewing, retrieval and storage; and Playjam interactive trivia and games. Niche video content is offered through a service called Mag Rack, which offers on-demand video magazines on a wide range of topics and VCR-like viewing control.

<sup>587</sup> Insight’s interactive digital TV service was available to 809,000 customers or 63.4% of the company’s total footprint at the end of Q3 2001. *New Services Drive Insight’s Revenue Growth*, Broadband-Daily.com, Nov. 7, 2001. Insight claims that digital cable penetration is 30 percent where it has launched interactive services as compared to 17-18 percent digital penetration in markets where interactive services are not available. *Id.*

<sup>588</sup> Insight has partnered with Liberate for set-top box software, CommerceTV for the electronic mall and with SourceMedia for LocalSource local information services. *See* Insight Communications, *Insight Communications Launches Commerce.TV in Lexington* (press release), Sept. 17, 2001.

<sup>589</sup> Rebecca Buckman, *Microsoft Lands TV Software Agreement with Cable Firm Charter Communications*, Wall Street Journal, Nov. 8, 2001 at A4. Charter expects to launch Microsoft TV-based services in early 2002. *Id.*

<sup>590</sup> *2000 Report*, 16 FCC Rcd at 6088-89.

<sup>591</sup> *See* DirecTV, *Personalized On-Demand Stock Quotes on TV – Now a Reality with Bloomberg Television, DirecTV and Wink Communications* (press release), Apr. 2, 2001; DirecTV, *DirecTV, ESPN and Wink Communications Announce Availability of “ESPN Today” on DirecTV Interactive Service* (press release), July 17, 2001; DirecTV, *Wink Communications and Barnes & Noble.com Launch the First National 24/7 Interactive E-Commerce Channel on Television* (press release), Sept. 18, 2001; DirecTV, *DirecTV, Music Choice and Wink Communications Announce New Interactive Television Commerce Service* (press release), Nov. 5, 2001. With respect to the e-commerce offerings, by employing their remote control, DirecTV customers can buy the top 100 best selling books on Barnes and Noble.com and can buy CDs containing the song they are listening to on music channels. DirecTV also includes in its programming lineup ShopNBC which offers “click and buy” interactivity via Wink technology.

<sup>592</sup> EchoStar, *EchoStar Introduces DISH Network PRO 501 – Premium Satellite Television Receiver Featuring Digital Video Recording, Interactive TV* (press release), Jan. 8, 2001.

networks continue to offer enhanced programming synchronized with online content. For example, ABC synchronizes web-based content with ESPN's *Sunday Night Football* games and ABC's *Monday Night Football* games.<sup>593</sup> During the 2002 Winter Olympics in Salt Lake City, WOW Digital TV and NBC affiliate KSL-TV will conduct a trial of a digital broadcast and interactive service, which will allow customers to call up data and make purchases over their televisions.<sup>594</sup>

190. On January 18, 2001, the Commission released a *Notice of Inquiry* seeking comment on whether rules are necessary to prevent anticompetitive behavior and to promote diversity and capital investments in the ITV market.<sup>595</sup> In this proceeding, some commenters reiterate their concerns regarding the advent of technical advances and the ability to distribute ITV and related advanced services. NAB asserts that new technologies, such as ITV and EPGs, will expand opportunities for cable operators to disfavor competing content and service providers.<sup>596</sup> NCTA disputes this, noting that cable companies and many other providers are in only the early stages of developing a variety of services that might be described as ITV services.<sup>597</sup> It further notes that video content providers are exploring all avenues for distribution, including DBS, wireless transport, DSL, digital broadcasting, and telephone lines for both the downstream and upstream components of ITV services.<sup>598</sup>

## 2. Navigation Devices

191. Section 629 of the Communications Act directed the Commission to adopt rules that would allow consumers to obtain "navigation devices," such as cable set-top boxes, remote control units, and other equipment, from commercial sources other than their cable providers.<sup>599</sup> In 1998, the Commission adopted rules that require MVPDs to unbundle security from other functions of the navigation device, and by July 1, 2000, to make available point-of-deployment modules ("PODs") to perform this function.<sup>600</sup> On reconsideration, the Commission deferred application of the rules requiring a

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<sup>593</sup> For a description of ABC Enhanced TV, see <http://heavy.etv.go.com/etvHome/tour.shtml>.

<sup>594</sup> In this trial, viewers will be able to receive digital broadcasts of Olympics coverage on their analog sets by using a WOW Digital TV proprietary set top box, which will be connected to a telephone line to allow interaction with the programming. OpenTV is providing the interactive-enabling software. Michael Grotticielli, *Putting Some Wow in DTV*, *Broadcasting & Cable*, Nov. 5, 2001; WOW Digital TV, *WOW Digital TV Formed to Deploy First Enhanced Digital Broadcast Platform for U.S. Broadcasters and Viewers* (press release), Nov. 5, 2001.

<sup>595</sup> *Nondiscrimination in the Distribution of Interactive Television Services Over Cable*, CS Docket No. 01-7, Notice of Inquiry, 16 FCC Rcd 1321 (2001).

<sup>596</sup> NAB Comments at 4. NAB also states that the delivery of digital ITV services will, unlike analog, require a mechanism for associating all of the video, audio and data elements comprising any interactive service, and cable operators will control this mechanism in the form of EPGs, thus expanding the opportunity for cable operators to discriminate against the offerings of unaffiliated entities and other disfavored competitors such as broadcasters. *Id.* at 5.

<sup>597</sup> NCTA at 13.

<sup>598</sup> *Id.* at 14.

<sup>599</sup> 47 U.S.C. § 549.

<sup>600</sup> *Navigation Report and Order*, n. 96 *supra*. On August 14, 2000, the Commission adopted a *Memorandum Opinion and Order*, which granted waivers of the July 1, 2000, compliance date for a limited number of cable operators that use hybrid navigation devices. The Commission established a revised compliance date for each of the individual systems involved, with no waiver granted beyond December 31, 2001. *Charter Communications, Inc., AT&T Broadband, L.L.C., Insight Communications Company, L.P., Cox Communications, Inc., GCI Cable Inc.*, (continued...)

separate security module for analog-only devices.<sup>601</sup> Thus, an MVPD subscriber will be able to obtain a set-top box without the security features (“host device”) from retailers and only remain reliant on the MVPD to provide a POD for security functions.<sup>602</sup> Despite the availability of PODs, CEA maintains that retailers have not been carrying cable set-top boxes.<sup>603</sup>

192. Through the OpenCable project, CableLabs has developed specifications for the POD module as well as the interface that a host device needs to accommodate the POD. CableLabs also developed the POD-Host Licensing Agreement (“PHILA”) to provide manufacturers with the necessary technology to make PODs work in host devices.<sup>604</sup> Consumer electronics manufacturers contend that the standards developed by CableLabs are not sufficiently settled to allow the manufacture of set-top boxes that are competitive with the equipment supplied to subscribers by cable operators.<sup>605</sup>

193. CableLabs is continuing its efforts to develop next generation navigation devices with its initiative for the OpenCable Application Platform (“OCAP”) or “middleware” specification. This specification includes a set of Application Programming Interfaces (“APIs”) designed to enhance the portability of OpenCable products across brands and operating systems. CableLab plans to release the OCAP specification by February 1, 2002.<sup>606</sup> CEA maintains that until this software standard is complete, manufacturers will not be able to build advanced set-top boxes for a retail market.<sup>607</sup> In another effort intended to facilitate the retail availability of set-top boxes, cable operators announced an initiative to encourage their set-top box suppliers to make their digital set-top boxes with embedded security available at retail.<sup>608</sup>

### 3. Cable Modems

194. A cable modem allows cable subscribers to access high-speed data services and interactive television, including the Internet, Internet Protocol (“IP”) telephony, video conferencing, and

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*Cablevision Systems Corp., Adelphia Communications Corp., MediaCom Communications Corp., CableAmerica Corp., Time Warner Cable, Petition for Waiver of the Requirement To Provide Point of Deployment Modules Contained in Section 76.1204 of the Commissions Rules, CSR Nos. 5545-Z, 5548-Z, 5558-Z, 5561-Z, 5564-Z, 5566-Z, 5567-Z, 5569-Z, 5570-Z, 5572-Z, Memorandum Opinion and Order, 15 FCC Rcd 15075 (2000).*

<sup>601</sup> 47 C.F.R. § 76.1204. *See also Navigation Reconsideration supra* n. 96.

<sup>602</sup> The POD requirement is intended to permit portability among set-top boxes, which will increase the market base and facilitate volume production. *Navigation Report and Order*, 13 FCC Rcd at 14793-4.

<sup>603</sup> CEA Comments at 2.

<sup>604</sup> Motorola and Scientific Atlanta have signed the PHILA and CableLabs is engaged in negotiations over the PHILA with other manufacturers. Letter from William A. Check, Ph.D., Vice President, Science and Technology, NCTA, to Magalie R. Salas, Secretary, FCC, Oct. 31, 2001.

<sup>605</sup> Letter from Michael Petricone, Vice President, Technology Policy, CEA, to Magalie R. Salas, Secretary, FCC, Nov. 6, 2001.

<sup>606</sup> Letter from William A. Check, Ph.D., Vice President, Science and Technology, NCTA, to Magalie R. Salas, Secretary, FCC, Oct. 31, 2001.

<sup>607</sup> Letter from Michael Petricone, Vice President, Technology Policy, CEA, to Magalie R. Salas, Secretary, FCC, Nov. 6, 2001.

<sup>608</sup> Letter from Robert Sachs, CEO, NCTA, to Michael Powell, Chairman, FCC, Oct. 10, 2001.

telecommuting. Cable modem deployment continues to increase.<sup>609</sup> As we previously reported, the CableLabs Certified Cable Modem Project (formerly known as Data Over Cable Service Interface Specification or DOCSIS) defines interface requirements for high-speed cable modems and provides a method for certifying that cable modems available for retail sale are in compliance with the DOCSIS specifications.<sup>610</sup> As of December 2001, CableLabs had certified 193 DOCSIS 1.0 modems and 26 cable modem termination systems (“CMTS”).<sup>611</sup> CableLabs also has developed an enhanced specification, DOCSIS 1.1, which provides for high-speed Internet service tiers, using techniques known as data fragmentation and quality of service. Under this specification, which is compatible with the existing DOCSIS 1.0 specification, cable operators can deliver high-speed Internet services simultaneously over the same plant and in a path parallel to core video services. To date, CableLabs has certified nine high-speed cable modems that comply with the DOCSIS 1.1 specification, and two companies have received qualification status for their DOCSIS 1.1 cable modem termination systems.<sup>612</sup> Recently, CableLabs announced the next version of the specification, to be called DOCSIS 2.0, which will significantly increase cable bandwidth for data transmissions without requiring any physical rebuilding of cable networks.<sup>613</sup> DOCSIS certified cable modems are now being sold at retail in some markets, although widespread retail availability has not yet occurred.<sup>614</sup>

195. PacketCable, another CableLabs project, is intended to develop interoperable interface specifications for delivering advanced, real-time multimedia services over two-way cable plant. PacketCable will use IP technology to enable a wide range of services, including IP telephony, multimedia conferencing, interactive gaming, and general multimedia applications.<sup>615</sup> In November 2000, CableLabs announced that it had completed the second phase of the PacketCable project and had released several new interim specifications and technical reports.<sup>616</sup> These specifications, which build upon the capabilities defined by the PacketCable 1.0 suite of specifications, describe call signaling, quality-of-service, and event messaging extensions that will enable cable operators to directly exchange multimedia traffic over managed-IP backbone networks. Future extensions to the PacketCable specifications will define protocols for enhanced capabilities, such as multimedia conferencing and interactive gaming. CableLabs observes that several vendors participating in this project are developing products based on the PacketCable specification.

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<sup>609</sup> See ¶¶ 44-8 *supra*.

<sup>610</sup> 2000 Report, 16 FCC Rcd at 6092. See also CableLabs at <http://cablemodem.com>.

<sup>611</sup> CableLabs, *CableLabs Certifies 7 More DOCSIS 1.1 Modems, Continuing Cable Data Advances* (press release), Dec. 20, 2001, at [http://cablelabs.com/news\\_room/PR/01\\_pr\\_cw20\\_122001.html](http://cablelabs.com/news_room/PR/01_pr_cw20_122001.html).

<sup>612</sup> *Id.* See also CableLabs, *Certifies Two DOCSIS 1.1 Modems and Qualifies Two CMTS, Achieving Breakthrough on Advanced Devices* (press release), Sept. 27, 2001, at [http://www.cablelabs.com/news\\_room/PR/00\\_pr\\_cw19\\_092701.html](http://www.cablelabs.com/news_room/PR/00_pr_cw19_092701.html). Companies receiving certification are Ambit, Arris, Ericsson, Scientific-Atlanta, Tellabs, and, for two modems apiece, Toshiba and Texas Instruments. Arris and Cadant gained qualification status for their cable modem termination systems.

<sup>613</sup> CableLabs, *CableLabs Creating Advanced Modem Spec to Enable 30 Mbps in Upstream* (press release), Aug. 31, 2001, at [http://www.cablelabs.com/news\\_room/PR/01\\_pr\\_adv\\_phy\\_083101.html](http://www.cablelabs.com/news_room/PR/01_pr_adv_phy_083101.html).

<sup>614</sup> Kinetic Strategies, Inc., *Cable Modem FAQ*, at <http://www.cabledatacomnews.com/cm/cmic2.html>.

<sup>615</sup> See CableLabs at <http://www.packetcable.com>. See also 2000 Report, 16 FCC Rcd at 6092.

<sup>616</sup> CableLabs, *Cablelabs Releases New Interim PacketCable Specifications* (press release), Nov. 28, 2000, at [http://www.cablelabs.com/news\\_room/PR/00\\_pr\\_pc\\_specs\\_112800.html](http://www.cablelabs.com/news_room/PR/00_pr_pc_specs_112800.html).

#### IV. COMPETITIVE RESPONSES

196. In this section, we describe a number of cases where the incumbent cable operator faces competition from a new entrant. We report information gathered through comments filed in this proceeding, petitions filed with the Commission for a determination of effective competition, trade press reports, articles, and other publicly available sources.

197. Between July 2000 and June 2001, the Bureau granted 16 petitions for effective competition, representing 240 communities, based on competitive entry from LECs or their affiliates, DBS, and municipal operators. These communities represent approximately two percent of all cable subscribers. The differences between competition and general market responses based on technological advances, improved marketing, and new service opportunities are not always easy to distinguish. However, in communities where head-to-head competition is present, the incumbent cable operator has generally responded to competitive entry in a variety of ways, such as by lowering prices, providing additional channels at the same monthly rate, improving customer service, adding new services, or by challenging the legality of the entrant's activities.

198. For example, in Boston, Massachusetts, in response to RCN's entry, the incumbent cable operator in Boston, Cablevision of Boston ("Cablevision"), "moderated" its regional rate increase in the Boston area and agreed to improve its commitment to public and educational channels.<sup>617</sup> RCN, a wholly owned subsidiary of RCN Telecom Services Inc., initially entered the Boston area market in 1996 as an OVS operator.<sup>618</sup> It was granted a 15-year cable franchise by the City of Boston on July 27, 1999. By September 1999, RCN served a total of 11,000 subscribers in the Boston metropolitan area, including 5,000 subscribers in the City of Boston.<sup>619</sup> By comparison Cablevision serves about 140,000 subscribers in Boston.<sup>620</sup>

199. RCN contends that, because of its entry to the Boston area, the City of Boston was able to negotiate a franchise renewal with Cablevision that imposed obligations on the incumbent more favorable to the public than would otherwise have been possible.<sup>621</sup> The franchise agreement requires Cablevision to upgrade its system capacity within three years to offer more channels, as well as local telephone and high-speed Internet access.<sup>622</sup> Initially Cablevision took steps to prevent RCN from going forward by filing a lawsuit against RCN and the city.<sup>623</sup> Furthermore, RCN contends that Cablevision created a barrier to entry by refusing RCN access to inside wiring in MDUs in the Boston area.<sup>624</sup>

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<sup>617</sup> RCN Comments at App. A.

<sup>618</sup> *Cablevision Petition for Special Relief*, CSR 5048-E, Aug. 3, 1999, at 2.

<sup>619</sup> RCN Comments at 5.

<sup>620</sup> On Jan. 5, 2001, AT&T acquired the Cablevision system that serves the Boston franchise area.

<sup>621</sup> RCN Comments at App. A.

<sup>622</sup> Bruce Mohl, *City Hopes Cable Pact Means Rate War*, Boston Globe, July 29, 1999, at 32.

<sup>623</sup> *City of Boston Application for Review of Determination of Effective Competition In Re Cablevision of Boston, Inc.*, CSR 5048-E, Aug. 20, 2001, at 2. See also *Cablevision of Boston, Inc., Petition for Determination of Effective Competition*, DSR 5048-E, Memorandum Opinion and Order, 16 FCC Rcd 14056 (2001).

<sup>624</sup> See ¶ 133 *supra*.



200. Lower monthly rates and added or improved services were also found in a number of other communities where the incumbent cable operator faced new entrants. For example, in Duluth, Georgia, the incumbent Rifkin & Associates, Inc./Cable Equities of Colorado, Ltd. (“Rifkin”) faced aggressive advertising aimed at its subscribers, accompanied by extensive press coverage in the local media, from new entrant BellSouth Interactive Media Services, Inc. (“BIMS”).<sup>625</sup> In response to aggressive competition from BIMS, Rifkin upgraded its system and added 19 new channels -- nine new expanded basic channels, a low priced, three-channel new product tier, and seven PPV channels.<sup>626</sup>

201. Similarly, RCN contends that in Somerville, Massachusetts, upon its entry, Time Warner, the incumbent, announced a rate freeze for only that area where it faced competition.<sup>627</sup> In suburban Philadelphia, as a result of RCN’s entry, Comcast, the incumbent, began to offer “rate locks” and service improvements in the towns where it faced competition.<sup>628</sup> In the Washington, D.C., area, as a result of entry by Starpower, an RCN affiliate, Comcast, the incumbent cable operator, reduced a previously proposed rate increase. RCN also contends that in anticipation of its entry in Fairfax County, a suburb of Washington, D.C., the incumbent Cox announced an upgrade of its plant.<sup>629</sup>

202. In some situations questions have been raised regarding the techniques used by incumbent service providers to forestall competition. In Scottsboro, Alabama, the Scottsboro Electric Power Board (“Scottsboro”) began construction of a new, municipally owned cable television system in Scottsboro because of widespread dissatisfaction with Falcon Cablevision (“Falcon”), the incumbent cable operator.<sup>630</sup> In late 1999, Charter Communications (“Charter”) acquired Falcon’s operation in Scottsboro. After acquiring the system, Charter began to engage in a course of conduct that, according to Scottsboro, is designed to terminate Scottsboro’s efforts to compete in the market and, moreover, to signal other would-be competitors that attempts to enter other Charter markets would lead to similar predatory practices.<sup>631</sup>

203. Since beginning in April 2000, Charter offered a special rate of \$19.95 per month for one year. It then allowed some customers to continue subscribing at that rate for a second year. In May 2000, Charter added one month of free service to the \$19.95 rate.<sup>632</sup> Scottsboro contends that Charter’s special rates are available only to Scottsboro’s customers and are not available to all potential subscribers in Scottsboro.<sup>633</sup>

204. According to Scottsboro, Charter normally charges \$24.95 per month for its expanded basic service, which includes 200 channels comprised of 16 premium movie channels, 45 digital music

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<sup>625</sup> *Rifkin & Associates, Inc./Cable Equities of Colorado, Ltd., Petition for Determination of Effective Competition at Exhibits D - F.*

<sup>626</sup> *Id.* at 10.

<sup>627</sup> *See 1999 Report*, 15 FCC Rcd at 1073.

<sup>628</sup> RCN Comments at App. A.

<sup>629</sup> *Id.*

<sup>630</sup> Scottsboro Comments at 5.

<sup>631</sup> *Id.* at 1.

<sup>632</sup> *Id.* at 5.

<sup>633</sup> *Id.* at 7.

channels, 16 educational channels, and 14 PPV channels. A digital receiver with remote and Charter's on-screen guide are also included. Furthermore, Charter offers a \$200 "bounty" to switch from Scottsboro to Charter, and an additional \$200 if subscribers take its Internet service. In addition, Charter established a system under which it retired subscribers' old debts. Scottsboro states that Charter's special offerings have induced about 36 percent of Scottsboro's customers to switch to Charter.

205. Charter counters that Scottsboro has easy access to every citizen because of its advantageous position as a municipally owned-cable system; it also has wide public support, low capital costs, and the incumbent system against which it formerly competed was in dire need of an upgrade. According to Charter, it upgraded the system after purchasing it from Falcon, and the system is now able to provide cable modem service and digital programming at competitive rates.<sup>634</sup> Charter admits that it has conducted "win back" campaigns, but claims that such campaigns are widespread among cable television operators. It also denies that it has set its prices at predatory rates and maintains that its actions and pricing policies have benefited subscribers in the community because they now enjoy lower monthly charges for improved services.<sup>635</sup>

206. Knology submits that Charter has engaged in similar behavior against its systems in West Point, Georgia, and Montgomery, Alabama.<sup>636</sup> Knology has provided cable service in West Point since 1998.<sup>637</sup> In 1999, Charter purchased the incumbent cable system from Marcus Cable. After Knology entered the market, several rounds of lowering prices occurred until both providers were charging about \$20 for expanded basic service. Knology contends that Charter did not offer the same discounted rates in nearby communities. According to Knology, in nearby communities, Charter's prices ranged to more than \$35 per month for expanded basic, more than the national average of \$32.25.<sup>638</sup> In addition, earlier this year, Charter began offering a "bounty" of \$200 and free installation to any consumers that switched from Knology to Charter. Knology states that, for customers taking advantage of this offer, the effective cost of cable service was reduced to less than \$4 per month.<sup>639</sup> In Montgomery, Knology purchased an existing competitive system in 1997.<sup>640</sup> When Charter acquired the incumbent cable system in 2001 from AT&T Broadband, it immediately lowered the price of its digital tier and offered consumers \$300 to switch from Knology to Charter. According to Knology, Charter recently began to offer a "digital complete basic" service for less than \$23 per month, which includes all analog expanded basic services, 50 channels available only on the digital tier, and 50 channels of digital music. In addition, Charter will forgive old debts to Charter or the system's previous owner. Knology alleges that Charter's discounts and giveaways have reduced its prices below costs, even if only programming costs are considered. Knology contends that Charter is taking a significant loss on each new customer it takes from its competitors, but it will be able to recoup its losses once it has driven its competitors out of the market.<sup>641</sup>

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<sup>634</sup> Charter Reply Comments at 1.

<sup>635</sup> *Id.* at 2-3.

<sup>636</sup> Knology Comments at 1.

<sup>637</sup> *Id.* at 3-4.

<sup>638</sup> *Id.* at 4.

<sup>639</sup> *Id.*

<sup>640</sup> *Id.* at 5-6.

<sup>641</sup> *Id.* at 6. *See also* Scottsboro Comments at 6-7.

207. In previous *Reports*, we have examined responses to head-to-head competition. In communities where cable operators have faced competition for a substantial period of time, the initial competitive response generally gives way to a more mature form of competition that benefits both subscribers and operators. In Omaha, Nebraska, where Cox and Qwest have been competing for the past six years, both offer a bundle of video, telephony, and high-speed Internet access services to entice new customers and retain old ones.<sup>642</sup> For example, Qwest's phone customers pay \$28.95 per month for 59 channels of basic cable service and \$39.95 per month for cable modem service. For its part, Cox charges \$33.95 per month for its 70 channel basic cable service and its cable modem service is \$5.00 lower than Qwest's charge for cable modem service. As result of this competition, cable penetration in the area has increased and "churn" has stabilized.<sup>643</sup>

208. As the cases presented above suggest, subscribers usually benefit from "head-to-head" competition. In communities where "head-to-head" competition has been sustained for a long period of time, customers generally receive lower monthly rates and better service, while operators generally enjoy higher penetration rates and lower churn rates. Commenters report that, however, in some cases, particularly where a new entrant may appear vulnerable for financial or other reasons, the initial response of a large incumbent MSO to competition may be motivated by anticompetitive animus rather than legitimate business concerns.<sup>644</sup> Further, commenters informed us that, because of the difficulty and cost of pursuing antitrust remedies, it may be that the target of anticompetitive conduct is without practical remedy.<sup>645</sup>

209. The allegations made in the comments of Scottsboro and Knology highlight the difficulties of new entrants that, for whatever reason, are capable of competing only within a confined geographic region. The vast resources of a large MSO may simply prove too much if brought to bear in a targeted fashion against a single system entrant. Moreover, we are concerned about the signal such targeting may send to others who would compete in the MVPD market, and particularly to the financial markets to which a new entrant may well be dependent for resources. However, it is not clear that we have specific statutory authority to address these kinds of problems directly. There has been some suggestion that our authority to prohibit anticompetitive acts or unfair practices under section 628 of the Act would reach targeted and predatory competitive responses.<sup>646</sup> Alternatively, it may be that we would have to seek additional authority from Congress in order to combat such practices, which tend to limit competition and discourage new entry.

## V. ADMINISTRATIVE MATTERS

210. This *2001 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).

211. It is ORDERED that the Office of Legislative and Intergovernmental Affairs shall send copies of this *2001 Report* to the appropriate committees and subcommittees of the United States House of Representatives and the United States Senate.

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<sup>642</sup> Matt Stump, *In Omaha, Cox and Qwest Wage Three-Way Contest*, Broadband Week, Oct. 1, 2001.

<sup>643</sup> *Id.*

<sup>644</sup> Knology Comment at 6-8; Scottsboro Reply Comment at 2-3.

<sup>645</sup> Cable Services Bureau staff meeting with Scottsboro, Oct. 17, 2001.

<sup>646</sup> Scottsboro Comment at 7-9; Knology Comments at 6-7.

212. It is FURTHER ORDERED that the proceeding in CS Docket No. 01-129 IS TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas  
Secretary

**APPENDIX A****List of Commenters****Initial Comments**

AT&T Corp. (“AT&T”)  
Carolina Broadband, Inc. (“Carolina”)  
Comcast Corporation (“Comcast”)  
Consumer Electronics Association (“CEA”)  
DirecTV, Inc. (“DirecTV”)  
John Dowie (“Dowie”)  
EchoStar Satellite Corporation (“EchoStar”)  
Etna Video (“Etna”)  
Motorola, Inc. (“Motorola”)  
National Association of Broadcasters (“NAB”)  
National Cable & Telecommunications Association (“NCTA”)  
National Rural Telecommunications Cooperative (“NRTC”)  
RCN Corporation (“RCN”)  
Satellite Broadcasting and Communications Association (“SBCA”)  
Scottsboro (Alabama) Electric Power Board (“Scottsboro”)  
State of Hawaii (“Hawaii”)  
Utilicorp Communications Services, Everest Connections Corporation, and ExOp of Missouri, Inc.  
 (“Utilicorp”)  
WBG-T-LP, David Grant and Molly Grant (“WBG-T-LP”)  
WBQC-CA, Elliott B. Block (“WBQC-CA”)  
WJAN-CA, Sherjan Broadcasting Co., Inc. (WJAN-CA”)  
WLOT-LP, R. Anthony Dimarcantonio (“WLOT-LP”)  
Wireless Communications Association International, Inc. (“WCA”)

**Reply Comments**

AT&T Corp. (“AT&T”)  
Cablevision Systems Corporation (“Cablevision”)  
Charter Communications, Inc. (August 20, 2001, Letter) (“Charter Letter”)  
Charter Communication, Inc. (Reply Comment) (“Charter”)  
Comcast Corporation (“Comcast”)  
DirecTV, Inc. (“DirecTV”)  
EchoStar Satellite Corporation (“EchoStar”)  
Gregory C. Jones, M.D. (“Jones”)  
National Association of Broadcasters (“NAB”)  
National Cable & Telecommunications Association (“NCTA”)  
National Rural Telecommunications Cooperative (“NRTC”)  
Northpoint Technology, Ltd. and Broadwave USA, Inc. (“Northpoint”)  
RCN Corporation (“RCN”)

Late-filed Comments

EARN (Equal Airwaves Right Now) (“EARN”)

Knology, Inc. (“Knology”)

Scottsboro (Alabama) Electric Power Board (“Scottsboro”)

WideOpenWest Holdings, LLC (“WOW”)

## APPENDIX B

**TABLE B-1**  
**Cable Television Industry Growth: 1993 - June 2001**  
(in millions)

Year End	Television Households ("TH")		Homes Passed ("HP")		Basic Cable Subscribers ("Subs")		HHs Passed by Cable (HP/TH)	HHs Subscribing (Subs/TH)	U.S. Penetration (Subs/HP)
	Total	% Change	Total	% Change	Total	% Change			
1993	94.0	1.0%	90.6	1.0%	57.2	3.6%	96.4%	60.9%	63.1%
1994	94.9	1.0%	91.6	1.1%	59.7	4.4%	96.5%	62.9%	65.2%
1995	95.9	1.1%	92.7	1.2%	62.1	4.0%	96.7%	64.8%	67.0%
1996	97.0	1.1%	93.7	1.1%	63.5	2.3%	96.6%	65.5%	67.8%
1997	98.0	1.0%	94.6	1.0%	64.9	2.2%	96.5%	66.2%	68.6%
1998	99.0	1.0%	95.6	1.1%	66.1	1.8%	96.6%	66.8%	69.1%
1999	100.0	1.0%	96.6	1.0%	67.3	1.8%	96.6%	67.3%	69.7%
2000	106.4	6.4%	103.2	6.8%	68.5	1.8%	97.0%	64.4%	66.4%
June 01 <sup>(e)</sup>	107.1	0.7%	104.0	0.8%	69.0	0.7%	97.1%	64.4%	66.3%

<sup>(e)</sup> June data is based on year-end estimate by Paul Kagan Associates.

**Sources:**

**1993 to 1997:** U.S. Television Households: Paul Kagan Assocs., Inc., *Basic Cable Network Economics (1983-2007)*, Cable Program Investor, Mar. 13, 1998, at 2; Homes Passed and Basic Cable Subscribers: Paul Kagan Assocs., Inc., *History of Cable and Pay-TV Subscribers and Revenues*, Cable TV Investor, Apr. 14, 1998, at 3.

**1998 and 1999:** U.S. Television Households, Homes Passed, and Basic Cable Subscribers: Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections (1998-2009)*, The Cable TV Financial Databook 1999, Aug. 1999, at 10.

**2000 and 2001:** U.S. Television Households, Homes Passed, and Basic Cable Subscribers: Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections (2000-2011)*, The Broadband Cable Financial Databook 2001, July 2001, at 10.

**TABLE B-2**  
**Premium Cable Services: 1993 - June 2001**  
**(in millions)**

Year End	Premium Cable Service Subscribers <sup>1</sup>		Premium Units <sup>2</sup>	
	Year End Total	% Change	Year End Total	% Change
1993	26.4	6.9%	47.0	1.1%
1994	28.1	6.4%	47.4	0.9%
1995	29.8	6.0%	51.6	8.9%
1996	31.0	4.0%	54.6	5.8%
1997	31.5	1.6%	56.0	2.6%
1998	35.3	12.1%	57.9	3.4%
1999	35.5	0.6%	53.0	-8.5% <sup>3</sup>
2000	36.8	3.7%	55.6	4.9%
June 2001 <sup>(e)</sup>	37.2	1.0%	56.4	1.4%

<sup>(e)</sup> June data are based on year-end estimate by Paul Kagan Associates.

<sup>1</sup> Premium Cable Services Subscribers refers to the total number of homes subscribing to one or more premium services. Each home is counted once, regardless of the number of premium services to which it subscribes.

<sup>2</sup> Premium Units refers to the total number of premium subscriptions. Each subscription is counted separately, thus may exceed the number of premium subscribers.

<sup>3</sup> The decrease in the number of premium units is due to the migration of certain pay services to other tier categories. As such, the number of units sold by those services are no longer counted here.

**Sources:**

**1993 to 1997:** Paul Kagan Assocs., Inc., *History of Cable and Pay-TV Subscribers and Revenues*, Cable TV Investor, Apr. 14, 1998, at 3.

**1998 to 1999:** Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections (1998-2009)*, The Cable TV Financial Databook 1999, Aug. 1999, at 10.

**2000 to 2001:** Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections (2000-2011)*, The Broadband Cable Financial Databook 2001, July 2001, at 10.



**TABLE B-3**  
**Growth By Network Type: 1999 - June 2001**

Network Type	1999		98-99	2000		99-00
	Number of Networks	Percent of Networks	Percent Change	Number of Networks	Percent of Networks	Percent Change
Basic/No-Chg	147	68.7%	5.8%	130	56.2%	-11.6%
Premium	43	20.1%	138.9%	40	17.3%	-7.0%
Pay Per View	9	4.2%	-10.0%	11	4.8%	22.2%
Digital	-	-	-	39	16.9%	-
Other*	15	7.0%	114.3%	11	4.8%	-26.7%
Total	214	100%	23.0%	231	100%	7.9%

\* "Other" includes cable networks that fall under more than one service category. For example, the Disney Channel is part of the basic tier in some systems, but is sold as a premium service on other systems.

**Sources:**

**1999:** NCTA, *National Cable Video Networks By Type of Service: 1980 - 1999*, Cable Television Developments 1999/2000, at 6.

**2000:** NCTA, *National Cable Video Networks By Type of Service: 1980 - 2000*, Cable Television Developments 2001, at 8.

**TABLE B-4**  
**Cable Industry Revenue and Cash Flow: 1997 – 2001**

	1997		1998		1999		2000		2001	
	Total	Total	% Change	Total	% Change	Total	% Change	Estimated Year End Total	% Change	
Avg Basic Subscribers (mil)	64.2	65.4	1.9%	66.7	2.0%	67.9	1.8%	69.0	1.6%	
<b>Revenue Segments (mil.)</b>										
Basic Service and CPST Tiers	\$20,008	\$21,830	9.1%	\$23,135	6.0%	\$24,729	6.9%	\$26,142	5.7%	
Pay Tiers	\$4,952	\$5,084	2.7%	\$4,989	-1.9%	\$4,648	-6.8%	\$4,777	2.8%	
Local Advertising	\$1,925	\$1,850	-3.9%	\$2,685	45.1%	\$3,240	20.7%	\$3,661	13.0%	
Pay-Per-View	\$823	\$627	-23.8%	\$954	52.2%	\$760	-20.3%	\$1,096	44.2%	
Home Shopping	\$152	\$187	23.0%	\$185	-1.1%	\$239	29.2%	\$260	8.8%	
Advanced Services (Ana./Dig.) <sup>1</sup>	\$208	\$452	117.3%	\$1,978	337.6%	\$2,051	3.7%	\$5,562	171.2%	
Equipment and Install	\$2,320	\$2,631	13.4%	\$2,824	7.3%	\$2,451	-13.2%	\$2,478	1.1%	
Total Revenue (mil.)	\$30,388	\$32,661	7.5%	\$36,750	12.5%	\$38,118	3.7%	\$43,976	15.4%	
Revenue Per Subscriber	\$473.33	\$499.40	5.5%	\$550.97	10.3%	\$561.38	1.9%	\$637.33	13.5%	
Operating Cash Flow (mil.) <sup>2</sup>	\$13,369	\$14,602	9.2%	\$15,600	6.8%	\$16,611	6.5%	\$18,272	10.0%	
Cash Flow per Subscriber	\$208.24	\$225.87	8.5%	\$233.88	3.5%	\$244.64	4.6%	\$264.81	8.2%	
Cash Flow/Total Revenue	44.0%	45.2%	2.7%	42.4%	-6.2%	43.6%	2.8%	41.5%	-4.8%	

<sup>1</sup> Includes advanced analog, digital video, high-speed data, cable telephony, interactive services, and games.

<sup>2</sup> Cash flow and its proxies (e.g., EBITDA) are often used to value the operations of a communications firm without regard to the firm's capital structure. Cash flow from operations is the net result of cash inflows from operations (revenue) and cash outflows from operations (expenses), thus ignoring non-cash charges to net income such as depreciation and amortization. Cash flow from operations indicates a firm's ability to meet its net finance and investment obligations.

**Sources:**

**1997:** Average Number of Basic Subscribers: Paul Kagan Assocs., Inc., *History of Cable and Pay-TV Subscribers and Revenues*, Cable TV Investor, Apr. 14, 1998, at 3; Revenue Segments: Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Projections*, Cable TV Investor, May 20, 1997, at 9; Paul Kagan Assocs., Inc., *Total Cable TV Advertising Revenue (1980-2007)*, Cable TV Financial Databook, Aug. 1998, at 15; Operating Cash Flow: Paul Kagan Assocs., Inc., *Estimated Capital Flows in Cable TV*, Cable TV Finance, May 31, 1998, at 1.

**1998:** Average Number of Basic Subscribers and Revenue Segments: Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections (1998-2009)*, The Cable TV Financial Databook 1999, Aug. 1999, at 10-11; Operating Cash Flow: Paul Kagan Assocs., Inc., *Estimated Capital Flows in Cable TV*, The Cable TV Financial Databook 1999, Aug. 1999, at 149.

**1999:** Average Number of Basic Subscribers and Revenue Segments: Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections (1999-2010)*, The Cable TV Financial Databook 2000, Aug. 2000, at 10; Operating Cash Flow: Paul Kagan Assocs., Inc., *Estimated Capital Flows in Cable TV*, The Cable TV Financial Databook 2000, Aug. 2000, at 150.

**2000 and 2001:** Average Number of Basic Subscribers and Revenue Segments: Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections (2000-2011)*, The Broadband Cable Financial Databook 2001, July 2001, at 10; Operating Cash Flow: Paul Kagan Assocs., Inc., *Estimated Capital Flows in Cable TV*, The Broadband Cable Financial Databook 2001, July 2001, at 138.

**TABLE B-5**  
**System Transactions: 1998 - June 2001**

	1998	1999	98-99 % Change	2000	99-00 % Change	Jan-June 2001
Number of Systems Sold	119	92	-22.7%	47	48.9%	23
Total Number of Subscribers	22,466,200	18,288,706	-18.6%	10,494,290	-42.6%	4,040,046
System Size Average	188,792	198,790	5.3%	223,283	12.3%	175,654
Number of Homes Passed	36,397,730	28,345,972	-22.1%	17,393,388	-38.6%	6,789,548
No. of Homes Passed Avg	305,863	308,108	0.73%	370,072	20.1%	295,197
Total Dollar Value (mil.)	\$64,601	\$73,070	13.1%	\$62,154	-14.9%	\$14,772
Dollar Value (mil.) Average	\$542.9	\$794.2	46.3%	\$1,322.4	66.5%	\$64.0
Dollar Val. Per Subscriber	\$2,875	\$3,995	39.0%	\$5,923	48.3%	\$3,656
Dollar Val. Per Home Passed	\$1,775	\$2,578	45.2%	\$3,573	38.6%	\$2,176
Cash Flow Multiple	13.1x	16.7x	27.5%	19.6x	17.4%	14.4x

**Sources:**

**1998:** Paul Kagan Assocs., Inc., *Cable System Sale Summary (through December annually)*, Cable TV Investor, Jan. 29, 2000, at 7.

**1999 to 2000:** Paul Kagan Assocs., Inc., *Cable System Sale Summary (Annually through December)*, Cable TV Investor, Feb. 5, 2001, at 12.

**2001:** Paul Kagan Assocs., Inc., *Cable System Sale Summary (Annually through June)*, Cable TV Investor, Aug. 29, 2001, at 9.

**TABLE B-6**  
**Acquisition of Capital: 1993 - June 2001**  
**(\$ in million)**

Year	Private Debt		Public Debt <sup>2</sup>		Private Equity		Public Equity		Total Capital Raised <sup>3</sup>
	Sum Raised	% of Total <sup>1</sup>	Sum Raised	% of Total	Sum Raised	% of Total	Sum Raised	% of Total	
1993	\$(3,584)	-186.4%	\$5,280	274.6%	\$62	3.2%	\$165	8.6%	\$1,923
1994	\$ 4,803	87.0%	\$155	2.8%	\$100	1.8%	\$461	8.4%	\$5,519
1995	\$(714)	-8.5%	\$4,495	53.6%	\$1,191	14.2%	\$3,419	40.7%	\$8,391
1996	\$1,287	23.4%	\$2,355	42.7%	\$49	0.9%	\$1,818	33.0%	\$5,509
1997	\$103	1.2%	\$6,252	73.3%	\$1,942	22.8%	\$230	2.7%	\$8,527
1998	\$194	2.3%	\$6,174	72.7%	\$200	2.4%	\$1,927	22.7%	\$8,495
1999	\$(320)	-1.1%	\$16,115	55.9%	\$5,385	18.7%	\$7,648	26.5%	\$28,828
2000	\$2,766	36.7%	\$4,288	56.9%	\$101	1.3%	\$380	5.0%	\$7,535
June 2001	\$8,585	44.3%	\$8,156	42.1%	\$94	0.5%	\$2,540	13.1%	\$19,375
<b>Total: 1993- June 2001</b>	<b>\$13,120</b>		<b>\$53,270</b>		<b>\$9,124</b>		<b>\$18,588</b>		<b>\$94,102</b>
<b>Avg Raised Per Year</b>	<b>\$1,544</b>		<b>\$6,267</b>		<b>\$1073</b>		<b>\$2,187</b>		<b>\$11,071</b>

<sup>1</sup> Column entitled "% of Total" represents the percent of total capital raised from financing sources for that given year.

<sup>2</sup> Public Debt is expressed in terms of net new public debt.

<sup>3</sup> Total Capital Raised equals private debt plus public debt plus private equity plus public equity.

**Sources:**

**1993:** Paul Kagan Assocs., Inc., *Estimated Capital Flows in Cable TV*, Cable TV Finance, May 31, 1998, at 1.

**1994:** Paul Kagan Assocs., Inc., *Estimated Capital Flows in Cable TV*, The Cable TV Financial Databook 1999, Aug. 1999, at 149.

**1995 to 1999:** Paul Kagan Assocs., Inc., *Estimated Capital Flows in Cable TV*, The Cable TV Financial Databook 2000, Aug. 2000, at 150.

**2000:** Paul Kagan Assocs., Inc., *Estimated Capital Flows in Cable TV*, The Broadband Cable Financial Databook 2001, July 2001, at 138.

**2001:** Paul Kagan Assocs., Inc., *June Cable Financing Snapshot*, Cable TV Finance, July 31, 2001, at 10.

## APPENDIX C

**TABLE C-1**  
**Assessment of Competing Technologies<sup>(i)</sup>**

Technology Used	June 97	June 98	June 99	June 00	June 01
(1) TV Households	97,000,000	98,000,000	99,400,000	100,801,720	102,184,810
Percent Change	0.00%	1.03%	1.43%	1.41%	1.37%
(2) MVPD Households <sup>(ii)</sup>	73,646,970	76,634,200	80,882,411	84,423,717	88,310,074
Percent Change	1.76%	4.06%	5.54%	4.38%	4.60%
Percent of TV Households	75.92%	78.20%	81.37%	83.75%	86.42%
(3) Cable Subscribers	64,150,000	65,400,000	66,690,000	67,700,000	68,980,000
Percent Change	1.02%	1.95%	1.97%	1.51%	1.89%
Percent of MVPD Total	87.10%	85.34%	82.45%	80.19%	78.11%
(4) MMDS Subscribers	1,100,000	1,000,000	821,000	700,000	700,000
Percent Change	-6.78%	-9.09%	-17.90%	-14.74%	0.0%
Percent of MVPD Total	1.49%	1.30%	1.02%	0.83%	0.79%
(5) SMATV Subscribers	1,162,500	940,000	1,450,000	1,500,000	1,500,000
Percent Change	3.24%	-19.14%	54.26%	3.45%	0.0%
Percent of MVPD Total	1.58%	1.23%	1.79%	1.78%	1.70%
(6) HSD Subscribers	2,184,470	2,028,200	1,783,411	1,476,717	1,000,074
Percent Change	-4.10%	-7.15%	-12.07%	-17.20%	-32.28%
Percent of MVPD Total	2.97%	2.65%	2.20%	1.75%	1.13%
(7) DBS Subscribers	5,047,000	7,200,000	10,078,000	12,987,000	16,070,000
Percent Change	17.78%	42.66%	39.97%	28.86%	23.74%
Percent of MVPD Total	6.85%	9.40%	12.46%	15.38%	18.20%
(8) OVS Subscribers <sup>(iii)</sup>	3,000	66,000	60,000	60,000	60,000
Percent Change	36.99%	2100.00%	-9.09%	0.0%	0.0%
Percent of MVPD Total	0.00%	0.09%	0.07%	0.07%	0.07%

**Notes:**

- (i) Some numbers have been rounded.
- (ii) The total number of MVPD households is likely to be somewhat less than the given figure since some households subscribe to the services of more than one MVPD. *See 1994 Report, 9 FCC Rcd at 7480.* However, the number of households subscribing to more than one MVPD is expected to be low. Hence the given total can be seen as a reasonable estimate of the number of MVPD households.
- (iii) The decline in OVS subscribers since 1998 reflects the conversion of portions of some OVS systems to franchised cable systems over the last three years.

**Sources:**

- (1) Television households: 1997 from Nielsen Media Research as cited in *TV Column*, Washington Post, Aug. 26, 1997, at E4; 1998 from Nielsen Media Research as cited in *Broadcasting & Cable*, June 29, 1998, at 70; 1999 from Nielsen Media Research as cited in *Broadcasting & Cable*, June 28, 1999, at 26; and 2000 and 2001 from *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: 1997 from Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections*, Cable TV Investor, May 20, 1997, at 9; 1998 from Paul Kagan Assocs., Inc., *Paul Kagan's 10-Year Cable TV Industry Projections*, Cable TV Investor, Aug. 10, 1998, at 4; 1999 from Paul Kagan Assocs., Inc., *Cable Industry 10-Year Projections*, Cable TV Investor, June 25, 1999, at 6; 2000 from Paul Kagan Assocs., Inc., *Cable Industry 10-Year Projections*, Cable TV Investor, June 19, 2000, at 6; and 2001 from Paul Kagan Assocs., *Kagan's 10-Year Cable TV Industry Projections*, *Broadband Cable Financial Databook 2001*, July 2001, at 10.
- (4) MMDS subscribers: 1997 from WCA Comments for the *1997 Report* at 8. The 1998 and 1999 subscribers estimated by the FCC; 2000 subscribers from NCTA Comments for the *2000 Report* at 9; and 2001 subscribers from NCTA comments at 7.
- (5) SMATV subscribers: 1997 subscribers were estimated by the FCC based on data from Paul Kagan Assocs., Inc., *Private Cable Growth*, Private Cable Investor, July 1997, at 3; 1998 subscribers from NCTA 1998 Comments at 6; 1999 subscribers from NCTA Comments for the *2000 Report* at 5; and 2001 subscribers from NCTA Comments at 9.
- (6) HSD subscribers: 1997 from *DTH Subscribers*, SkyREPORT, Nov. 1999, at 10; 1998-2000 from SkyReport.com at [http://www.skyreport.com/dth\\_us.htm](http://www.skyreport.com/dth_us.htm); and 2001 from SBCA Comments, Table 1 at 4.
- (7) DBS subscribers: 1997 from *DTH Subscribers*, SkyREPORT, November 1997, at 10; 1998 from Minal Damani and Jennifer E. Sharpe, *U.S. DBS Marketplace: 1998*, The Strategis Group, July, 1998 at 6; 1999-2000 from SkyReport.com at [http://www.skyreport.com/dth\\_us.htm](http://www.skyreport.com/dth_us.htm); and 2001 from SBCA Comments, Table 1 at 4.
- (8) OVS subscribers: OVS subscriber count for 1997 through 2001 estimated by the FCC.



**TABLE C-2**  
**Number and Subscriber Size of Major Cable System Clusters**  
**(Cumulative Figures)**

Range of Clustered Subscribers (thousands)	1997		1998		1999		2000	
	Clusters	Subscribers (millions)	Clusters	Subscribers (millions)	Clusters	Subscribers (millions)	Clusters	Subscribers (millions)
100-199	49	6.7	33	4.6	41	5.4	26	3.6
200-299	33	8.2	25	6.3	16	4	13	3.2
300-399	11	3.8	20	6.7	20	6.8	22	7.4
400-499	8	3.7	7	3.2	9	3.9	13	5.9
>500	16	11.9	21	19.6	28	23.8	34	34.3
<b>Total</b>	117	34.3	106	40.4	114	43.9	108	54.4

**Sources:**

**1997 to 1999:** Paul Kagan Assocs., Inc., *Major Cable TV Systems/Clusters*, The Cable TV Financial Databook 1997, July 1997, at 39-41; Paul Kagan Assocs., Inc., *Major Cable TV Systems/Clusters*, The Cable TV Financial Databook 1998, July 1998, at 42-44; Paul Kagan Assocs., Inc., *Major Cable TV Systems/Clusters*, The Cable TV Financial Databook 1999, July 1999, at 46-48.

**2000:** Paul Kagan Assocs., *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2001, July 2001, at 36.

**TABLE C-3**  
**2001 Concentration in the National Market for Purchase of Video Programming<sup>(1)</sup>**

Rank	Company	Percent of Subscribers <sup>(2)</sup>
1	AT&T	16.44
2	Time Warner	14.35
3	DirecTV	11.32
4	Comcast	9.53
<b>Top 4</b>		51.64
5	Charter	7.35
6	Cox	6.98
7	EchoStar	6.87
8	Adelphia	6.51
<b>Top 8</b>		79.35
9	Cablevision	3.40
10	Insight	1.54
<b>Top 10</b>		84.29
<b>Top 25</b>		89.70
<b>Top 50</b>		91.38
	<b>HHI</b>	905 <sup>(3)</sup>

**Notes:**

- (1) MSO subscriber totals as of June 2001, and reported in Top Cable System Operators as of June 2001, Kagan World Media, *Cable TV Investor*, August 29, 2001, at 12-13. There is no double counting of subscribers. If a cable operator is partially owned by more than one MSO, its subscribers are assigned to the largest MSO. Subscribers for DirecTV and EchoStar are based on SkyReport.com at [http://www.skyreport.com/dth\\_us.htm](http://www.skyreport.com/dth_us.htm).

- (2) The total number of MVPD subscribers used to calculate the HHI is 88,310,074 from Table C-1.
- (3) The HHI is calculated on the basis of market shares for the top 60 companies. Because all of the remaining MVPDs have very small shares of the market, an HHI calculation that included all cable system operators could only be slightly higher (no more than 2-3 points) than the given HHI.

**TABLE C-4**  
**Concentration in the National Market for the Purchase of Video Programming**  
**1998-2001**

Market Share	Percent of MVPD Subscribers			
	1998	1999	2000	2001
Top Share	26.48	20.50	19.07	16.44
Top 2	42.62	36.45	33.99	30.79
Top 3	48.94	45.68	44.27	42.11
Top 4	54.63	53.94	52.70	51.64
Top 10	71.04	74.95	83.90	84.29
Top 25	80.99	84.92	89.75	89.70
Top 50	86.08	89.58	92.14	91.38
HHI	1096	923	954	905

**Source:**

Data for 1998 through 2000 were taken from *Reports, 1997-2000*. Data for 2001 are from Table C-2.

## APPENDIX D

**TABLE D-1**  
**MSO Ownership in National Video Programming Services**

Programming Service	Launch Date	MSO Ownership (%)
Action Max	Jun-98	AOL Time Warner (100)
American Movie Classics (AMC)	Oct-84	Cablevision (75)
Animal Planet	Oct-96	Liberty Media (49), Cox (19.7)
@Max	May-01	AOL Time Warner (100)
BET Movies	Feb-97	Liberty Media (100)
Black STARZ!	Feb-97	Liberty Media (100)
Bravo	Feb-80	Cablevision (75), Liberty Media (25)
Canales ñ (6 digital channels) <sup>1</sup>	Oct-98	Liberty Media (100)
Cartoon Network	Oct-92	AOL Time Warner (100)
Cinemax	Aug-80	AOL Time Warner (100)
CNN	Jun-80	AOL Time Warner (100)
CNN Español	Mar-97	AOL Time Warner (100)
CNN Headline News	Jan-82	AOL Time Warner (100)
CNN International	Jan-95	AOL Time Warner (100)
CNN/Sports Illustrated	Dec-96	AOL Time Warner (100)
CNN Money	Dec-95	AOL Time Warner (100)
Comedy Central	Apr-91	AOL Time Warner (50)
Court TV	Jul-91	Liberty Media (50), AOL Time Warner (50)
Discovery Channel	Jun-85	Liberty Media (49), Cox (24.6)
Discovery Civilization	Oct-96	Liberty Media (49), Cox (24.6)
Discovery En Español	Aug-98	Liberty Media (49), Cox (24.6)
Discovery Health	Jul-98	Liberty Media (49), Cox (24.6)
Discovery Home & Leisure	Oct-96	Liberty Media (49), Cox (24.6)
Discovery Kids	Oct-96	Liberty Media (49), Cox (24.6)
Discovery Science	Oct-96	Liberty Media (49), Cox (24.6)

Programming Service	Launch Date	MSO Ownership (%)
Discovery Wings	Jul-98	Liberty Media (49), Cox (24.6)
E! Entertainment	Jun-90	Comcast (40), Liberty Media (10)
Encore	Apr-91	Liberty Media (100)
Encore Action	Sept-94	Liberty Media (100)
Encore Love Stories	Jul-94	Liberty Media (100)
Encore Mysteries	Jul-94	Liberty Media (100)
Encore True Stories and Drama	Sept-94	Liberty Media (100)
Encore WAM! America's Youth Network	Sept-94	Liberty Media (100)
Encore Westerns	Jul-94	Liberty Media (100)
5StarMax	May-01	AOL Time Warner (100)
FOX Sports Net (5 channels)	Various	Cablevision (50)
GEMS International Television	Apr-93	Liberty Media (50)
Golf Channel	Jan-95	Liberty Media (10), Comcast (90)
Great American Country	Dec-95	Comcast (100)
Hallmark Channel (formerly Odyssey)	Oct-93	Liberty Media (32.5)
HBO (Home Box Office)	Nov-72	AOL Time Warner (100)
HBO Latino	Nov-00	AOL Time Warner (100)
HBO Plus	Dec-75	AOL Time Warner (100)
HBO Signature	Oct-93	AOL Time Warner (100)
HBO Comedy	May-99	AOL Time Warner (100)
HBO Family	Dec-96	AOL Time Warner (100)
HBO Zone	May-99	AOL Time Warner (100)
Home Shopping Network	Jul-85	Liberty Media (19.7)
Independent Film Channel	Sep-94	Cablevision (75)
International Channel	Jul-90	Liberty Media (90)
MoreMAX	Aug-91	AOL Time Warner (100)
MoviePlex	Dec-79	Liberty Media (100)
MuchMusic USA	Jul-94	Cablevision (75)

Programming Service	Launch Date	MSO Ownership (%)
Outdoor Life Network	Jul-95	Cox (33.3), Comcast (17), Liberty Media (15.4)
OuterMax	May-01	AOL Time Warner (100)
Ovation: The Arts Network	Apr-96	AOL Time Warner (4.2)
PIN (Product Information Network)	Apr-94	Cox (45)
Prevue Channel	Jan-88	Liberty Media (51)
QVC	Nov-86	Comcast (57), Liberty Media (43)
Sci-Fi Channel	Sept-92	Liberty Media (19.7)
Sneak Prevue	May-91	Liberty Media (12)
Starz!	Feb-94	Liberty Media (100)
Starz! Action	May-99	Liberty Media (100)
Starz! Cinema	May-99	Liberty Media (100)
Starz! Family	May-99	Liberty Media (100)
Starz! Love Stories	Feb-94	Liberty Media (100)
Starz! MoviePlex	Jan-95	Liberty Media (100)
Starz! Mystery	Feb-94	Liberty Media (100)
Starz! Theater	Mar-96	Liberty Media (100)
Starz! True Stories	Feb-94	Liberty Media (100)
Starz! Wam	Feb-94	Liberty Media (100)
Starz! Westerns	Feb-94	Liberty Media (100)
Style	May-99	Comcast (40), Liberty Media (10)
TBS	Dec-76	AOL Time Warner (100)
Telemundo <sup>2</sup>	Jan-87	Liberty Media (40)
TLC (The Learning Channel)	Nov-80	Liberty Media (49), Cox (24.6)
Thematic Multiplex SM	Jul-94	Liberty Media (100)
Thriller Max	Jun-98	AOL Time Warner (100)
TNT (Turner Network Television)	Oct-88	AOL Time Warner (100)
Travel Channel	Feb-87	Liberty Media (49), Cox (24.6)
Turner Classic Movies	Apr-94	AOL Time Warner (100)

Programming Service	Launch Date	MSO Ownership (%)
USA Network	Apr-80	Liberty Media (21)
Viewers Choice 1-10 and Hot Choice (11 multiplexed channels)	Nov-85	Cox (20), Time Warner (17), Liberty Media (11.7), Comcast (11)
WE	Jan-97	Cablevision (75)
WMAX	May-01	AOL Time Warner (100)

**Notes:**

<sup>1</sup> Canales ñ, Liberty Media's digital package of Spanish-language channels, consists of FoxSportsAmericas, CBS Telenoticias, CineLatino, BoxTejano, BoxExitos, and Canal 9.

<sup>2</sup> On October, 11, 2001, NBC announced that it would acquire the Telemundo Network Group. Since this sale is subject to regulatory approval by the Federal Communications Commission and the Federal Trade Commission, we list it as vertically integrated with Liberty Media. See Steve McClellan, *Lo Mas Grande Deal De NBC*, *Broadcasting & Cable*, Oct. 15, 2001, at 6.

**Sources:**

NCTA, *Directory of Cable Networks*, Cable Television Developments 2001, at 28-146.

Joe Schlosser, *Fox Puts on Some Speed*, *Broadcasting and Cable*, Aug. 6, 2001, at 4.

BET.com, at <http://www.bet.com/atBET/0.,C-6-73-137584,00.html>.

Viacom.com, at <http://www.viacom.com/unitbyseg.tin?sBusSegmentNickname=ctv>.

Liberty Media Corp., at [http://www.libertymedia.com/our\\_affiliates/video\\_programming.htm](http://www.libertymedia.com/our_affiliates/video_programming.htm)



**TABLE D-2**  
**National Video Programming Services**  
**Not Affiliated With a Cable Operator**

Programming Service	Launch Date
A&E (Arts & Entertainment)	Feb-84
ABC Family (formerly Fox Family Channel)	Apr-77
All News Channel	Nov-89
America's Store	Sep-86
ANA Television Network	Dec-91
ART (Arab Radio & Television)	1999
Asian American Satellite TV	Jan-92
BBC America	Mar-98
BET	Jan-80
BET Action Pay Per View	Sep-90
BET Gospel	Nov-98
BET on Jazz	Jan-96
Biography Channel	Dec-98
Bloomberg Information Television	Jan-95
Boating Channel	Nov-98
Box Music Network	Dec-85
Canal Sur	Aug-91
CCTV-4 (China Central Television)	Jan-98
CelticVision	Mar-95
Classic Arts Showcase	May-94
CMT (Country Music Television)	Mar-83
CNBC	Apr-89
CNET: The Computer Network	Jan-95
College Entertainment Network	Jan-97
Crime Channel	Jul-93
C-SPAN*	Mar-79
C-SPAN2*	Jun-86
C-SPAN3*	Sep-97
CTN (Chinese Television Network)	1995
Deep Dish TV	Jan-86

Programming Service	Launch Date
Disney Channel	Apr-83
Do-It-Yourself Channel	Sep-99
Dream TV Network	Nov-96
Ecology Communications	Nov-94
ESPN	Sep-79
ESPN Classic Sports (formerly Classic Sports Network)	May-95
ESPN2	Oct-93
ESPNEWS	Nov-96
ESPN EXTRA	Sep-99
ESPN NOW	Sep-99
ETC (The Erotic Network)	Jul-00
EWTN: Global Catholic Network	Aug-81
Extasy	Feb-98
Filipino Channel	Apr-94
Flix	Aug-92
Food Network	Nov-93
Fox Movie Channel	Nov-94
Fox News Channel	Oct-96
Fox Sports World Español	Feb-99
Fox Sports World	1997
FoxNet	Jul-91
FX	Jun-94
Free Speech TV (FSTV)	Jun-95
Galavision	Oct-79
Game Show Network	Dec-94
Golden Eagle Broadcasting	Nov-98
Goodlife Television Network (formerly Nostalgia Channel)	Jun-98
History Channel	Jan-95
History Channel International	Dec-98
Home & Garden Television	Dec-94
Hot Choice	Jun-86

Programming Service	Launch Date
Hot Networks	Mar-99
HTV	Aug-95
Idea Channel	Jan-92
iN DEMAND (Pay Per View)	Nov-85
Inspirational Network	Apr-78
Interactive Channel	Nov-93
International Channel	Jul-90
Ladbroke Racing Channel	Nov-84
Lifetime Movie Network	Jun-98
Lifetime Television	Feb-84
Lightspan Partnership, Inc.	Feb-95
Locomotion Channel	Nov-96
MBC Movie Network	Nov-98
Melli TV	1995
MSNBC	Jul-96
MTV "S"	Aug-98
MTV "X"	Aug-98
MTV Networks Latin America (formerly MTV Latino)	Oct-93
MTV: Music Television	Aug-81
MTV 2	Aug-98
My Pet TV	Sep-96
NASA Television	Jul-91
National Geographic Channel	Jan-01
National Jewish Television	May-81
Newsworld International	Sep-94
Nick At Nite's TV Land	Apr-96
Nickelodeon Gas-Games & Sports Network	Mar-99
Nick Too	Jan-99
Nickelodeon/Nick at Nite	Apr-79
Noggin	Feb-99
NUE-TV	Jul-00
Oasis TV	Sep-97

Programming Service	Launch Date
Outdoor Channel	Apr-93
Oxygen	Feb-00
Pax TV	Aug-98
Playboy TV	Nov-82
Pleasure Channel	Jun-99
Praise Television	Dec-96
Proto X	1997
Puma TV	1997
RAI International	1999
Recovery Network	Feb-97
Scandinavian Channel	Oct-99
SCOLA	Aug-87
Shop at Home	Jun-86
Short TV	Jan-99
Showtime	Jul-76
Showtime Beyond	Sep-99
Showtime Event Television (SET)	1979
Showtime Extreme	1998
Showtime Family Zone	Mar-01
Showtime Next	Mar-01
Showtime Women	Mar-01
Skyview World Media	1992
SoapNet	Jan-00
Speedvision	Jan-96
Spice 1	May-89
Spice 2	Unknown
Sun TV	Aug-96
Starnet	Jan-89
Sundance Channel	Feb-96
The Erotic Network (TEN)	Aug-98
TMC (The Movie Channel)	Dec-79
True Blue	Feb-98
TNN (The National Network)	Mar-83

Programming Service	Launch Date
Toon Disney	Apr-98
Trinity Broadcasting Network	Mar-83
TRIO	Sep-94
TV 5 – USA Inc.	Jan-98
TV Asia	Apr-93
TV Games Network	Unknown
TV Japan	Jul-91
TVN Entertainment Corporation (33 digital pay-per-view channels)	Feb-98
TVR (TV Russia Network)	1995
TV Guide Channel	Jan-88
TV Guide Interactive	Oct-96
TV Guide Sneak Preview	1991
TVN Direct	Jan-96
Universal Torah Broadcasting Network	Dec-98
Univision	Sep-76
UVTV/KTLA	Mar-88
UVTV/WGN	Nov-98
UVTV\WPIX	May-84
ValueVision	Oct-91
VH1 (Music First)	Jan-85
VH1 (Classic Rock)	Aug-98
VH1 Soul	Aug-98
VHI Country	Aug-98
Weather Channel	May-82
Weather Channel/Latin America	Nov-96
Weatherscan	April-98
Weatherscan Local	May-99
Wisdom Television	Jul-97
Worship Network	Sep-92
X Cubed	Unknown
Z Music	Mar-93
ZEE TV	1999

**Note:**

\* Cable affiliates provide 95 percent of funding for C-SPAN, C-SPAN2, and C-SPAN3, but have no ownership or program control interests. DBS licensees provide the other 5 percent of funding and also have no ownership or program control interests.

**Source:**

NCTA, *Directory of Cable Networks*, Cable Television Developments 2001, at 28-154.

**TABLE D-3  
Regional Video Programming Services**

Programming Services	Launch Date	MSO Ownership (%)
Arabic Channel	Apr-91	
Arizona News Channel	Nov-96	
Automotive Television Network (ATN)	Sep-95	
Bonjour USA	Sep-94	
Cable TV Network of New Jersey	Jul-93	
California Channel	Feb-91	
Casa Club TV	Jul-97	
Central Florida News 13	Oct-97	AOL Time Warner (50)
ChicagoLand Television News (CLTV)	Jan-93	
CN8 – The Comcast Network	1996	Comcast (100)
Comcast SportsNet	Oct-97	Comcast (45)
Comcast SportsNet Mid Atlantic	Apr-84	Comcast (45)
County Television Network San Diego	Jul-96	
Ecumenical Television Channel	1983	
Empire Sports Network	Dec-90	
Florida's News Channel	Sep-98	
Fox Sports Net West	Oct-85	Cablevision (45)
Fox Sports Net 2	Jan-97	Cablevision (45)
Fox Sports Net Arizona	Sep-96	Cablevision (45)
Fox Sports Net Bay Area	Apr-90	Cablevision (45)
Fox Sports Net Chicago	Jan-84	Cablevision (45)
Fox Sports Cincinnati	1989	Cablevision (45)
Fox Sports Net Detroit	Sep-97	Cablevision (45)
Fox Sports Intermountain West	1990	Cablevision (45)
Fox Sports Midwest	1989	Cablevision (45)
Fox Sports Net New England	Nov-81	Cablevision (22.5), Liberty Media (50)
Fox Sports New York	1982	Cablevision (41.5)
Fox Sports Net North	Mar-89	Cablevision (45)
Fox Sports Net Northwest	Nov-88	Cablevision (45)
Fox Sports Net Ohio	Feb-89	Cablevision (45)

Programming Services	Launch Date	MSO Ownership (%)
Fox Sports Net Pittsburgh	Apr-86	Cablevision (45)
Fox Sports Net Rocky Mountain	Nov-88	Cablevision (45)
Fox Sports Net South	Aug-90	Cablevision (45)
Fox Sports Net Southwest	Jan-83	Cablevision (45)
Fox Sports West 2	Jan-97	Cablevision (45)
Hip Hop Network	Jan-97	
Home Team Sports (HTS)	Apr-84	Liberty Media (17)
International Television Broadcasting (ITV)	Apr-86	
Las Vegas One News	Apr-98	
Local News on Cable	Feb-97	
Lottery Channel	Nov-95	
Madison Square Garden Network (MSG)	Oct-69	Liberty Media (18), Cablevision (41.5)
MediaOne News	Dec-95	Liberty Media (100)
MGM	Jul-97	
Michigan Government Television	Jul-96	
Midwest Sports Channel	Mar-89	
MSG Metro Guide	Aug-98	Cablevision (100)
MSG Metro Learning Channel	Aug-98	Cablevision (100)
MSG Traffic and Weather	Aug-98	Cablevision (100)
Neighborhood News L.I.	Unknown	Cablevision (75)
New England Cable News	Mar-92	Liberty Media (50)
New England Sports Network (NESN)	Mar-84	
New York 1 News	Sep-92	
News 12 Connecticut	Jun-95	Cablevision (75)
News 12 Long Island	Dec-86	Cablevision (75)
News 12 New Jersey	Mar-96	Cablevision (75)
News 12 The Bronx	Jun-98	Cablevision
News 12 Westchester	Nov-95	Cablevision (75)
News 8 Austin	Sep-99	
News Channel 5+	Sept-96	
News Now 53	Jun-97	Cox (50)
News on One	Oct-97	



Programming Services	Launch Date	MSO Ownership (%)
News Watch 15	Oct-99	
Newschannel 8	Oct-91	
NGTV	Dec-87	
Nippon Golden Network	Jan-82	
NorthWest Cable News	Dec-95	
Ohio News Network	May-97	
PASS Sports (Pro-Am Sports System)	Apr-84	
Pennsylvania Cable Network (PCN)	Sep-79	
Pittsburgh Cable News Channel (PCNC)	Jan-94	
Rarities Exchange	Dec-98	
San Diego's News Channel 15	Jan-97	
Six News Now	Jul-95	
South Florida News Channel	1998	
SportsChannel Florida	Dec-87	Liberty Media (6), Cablevision (13.5)
Sunshine Network	Mar-88	Liberty Media (34.5), Comcast (16), Cox (5.3)
Texas Cable News	Jan-99	
TV33	Dec-95	
WSBK	Feb-88	

**Sources:**

NCTA, *Regional Cable Networks*, Cable Television Developments 2001, at 174-200.

Cablevision Systems Corp., at <http://www.cablevision.com/cvhome/cvrainb/rainbow.htm>.

FoxSports, at <http://foxsports.com/direct/index.sml>.

New Frontier Media, at <http://www.noof.com/business/broadcast.html>.

**TABLE D-4**  
**Planned Programming Services**

Programming Service	Planned Launch Date, If Announced
AACN	2Q02
American Legal Network	TBA
AMC's American Pop	TBA
American West Network	TBA
Anthropology Programming and Entertainment	TBA
Anti-Aging Network	TBA
Applause	TBA
Auto Channel	2Q02
Baby TV	TBA
Beauty Channel	4Q02
BET Rap/Hip Hop	TBA
BET World Music Beat	TBA
Black Women's Television	4Q01
Boating Channel	TBA
Bravo World Cinema	TBA
Children's Fashion Network	4Q01
Collectors Channel	TBA
Documentary Channel	4Q01
Eurocinema	TBA
Fad TV (Fashion & Design Television)	2Q02
Fashion Network	TBA
Fine Living	1Q02
G4	April 2002
GETV Network	March 2002
Global Village Network	TBA
Hobby Craft Interactive	TBA
Honey Vision	TBA
Investment TV	4Q01
Local News Network	TBA
Love Network	TBA
Moviewatch	2002

Programming Service	Planned Launch Date, If Announced
Native American Nations Program Network	2002
Noah's World International	April 2002
Orb TV	TBA
Performance Showcase	TBA
Premiere Horse Network	TBA
Puppy Channel	February 2002
RadioTV Network	4Q02
Real Estate Network (TREN)	TBA
Romanceland	TBA
Seminar TV Network (Seminar TV)	1Q02
Senior Citizens Television Network	1Q01
Si TV	2002
Skywatcher Channel	TBA
The Football Channel (TFN)	TBA
The Gospel Network	TBA
The Military Channel	TBA
The World Cinema Channel	TBA
Theater Channel	TBA
The Tennis Channel	July 2002
Youth Sports Broadcasting Channel	TBA

**Sources:**

NCTA, *Planned Services*, Cable Television Developments 2001, at 155-173.

John M. Higgins, *Tennis Anyone*, Broadcasting & Cable, Sept. 3, 2001, at 12.

*Scripps Secures Time Warner Carriage*, Multichannel News, Oct. 15, 2001, at 2.

**TABLE D-5**  
**MSO Ownership in National Programming**

<b>Services<sup>1</sup></b>	<b>Subs. (mil)</b>	<b>Liberty Media</b>	<b>AOL Time Warner</b>	<b>Comcast</b>	<b>Cox</b>	<b>Cablevision Systems</b>
Action Max	37.0		100.0%			
AMC	75.0					75.0%
Animal Planet	54.0	49.0%			19.7%	
@Max	* <sup>2</sup>		100.0%			
BET Movies	10.0	100.0%				
Black Starz!	*	100.0%				
Bravo	49.4	25.0%				75.0%
Canales ñ (6 channels)	*	100.0%				
Cartoon Network	60.0		100.0%			
Cinemax			100.0%			
CNN	79.7		100.0%			
CNN Español	10.5		100.0%			
CNN Headline News	76.2		100.0%			
CNN International <sup>3</sup>	10.0		100.0%			
CNN/SI	15.4		100.0%			
CNN Money	13.0		100.0%			
Comedy Central	69.0		50.0%			
Court TV	40.0	50.0%	50.0%			
Discovery	81.7	49.0%			24.6%	
Discovery Civilization	7.0	49.0%			24.6%	
Discovery En Español	*	49.0%			24.6%	
Discovery Health	25.0	49.0%			24.6%	
Discovery Home&Leisure	7.0	49.0%			24.6%	
Discovery Kids	10.0	49.0%			24.6%	
Discovery Science	10.0	49.0%			24.6%	
Discovery Wings	7.0	49.0%			24.6%	
E! Entertainment	65.0	10.0%		40.0%		
Encore	16.0	100.0%				
Encore Action	*	100.0%				

Services <sup>1</sup>	Subs. (mil)	Liberty Media	AOL Time Warner	Comcast	Cox	Cablevision Systems
Encore Love Stories	*	100.0%				
Encore Mysteries	*	100.0%				
Encore True Stories/Drama	*	100.0%				
Encore WAM!	*	100.0%				
Encore Westerns	*	100.0%				
Fox Sports (5 channels)						100.0%
5Star Max	*		100.0%			
GEMS International TV	6.4	50.0%				
Golf Channel	29.5	10.0%		90.0%		
Great American Country	15.0			100.0%		
Hallmark Channel	*	32.5%				
HBO	37.0 <sup>4</sup>		100.0%			
HBO Latino	*		100.0%			
HBO Plus	*		100.0%			
HBO Signature	*		100.0%			
HBO Comedy	*		100.0%			
HBO Family	*		100.0%			
HBO Zone	*		100.0%			
HSN	50.0	19.7%				
Independent Film Channel	30.0					75.0%
International Channel	8.3	90.0%				
More Max	*		100.0%			
Movie Plex	8	100.0%				
Much Music USA	19.1					75.0%
Outdoor Life	26.0	15.4%		17.0%	33.3%	
Outer Max	*		100.0%			
Ovation	15.0		4.2%			
PIN	35.0				45.0%	
Prevue Channel	*	51.0%				

Services <sup>1</sup>	Subs. (mil)	Liberty Media	AOL Time Warner	Comcast	Cox	Cablevision Systems
QVC	74.8	43.0%		57.0%		
Sci-Fi	66.0	19.7%				
Sneak Prevue	*	12.0%				
Starz!	13.0	100.0%				
Starz! Action	*	100.0%				
Starz! Cinema	*	100.0%				
Starz! Family	*	100.0%				
Starz! Love St.	*	100.0%				
Starz! MoviePlex	*	100.0%				
Starz! Mystery	*	100.0%				
Starz! Theater	*	100.0%				
Starz! True Stories	*	100.0%				
Starz! WAM	*	100.0%				
Starz! Westerns	*	100.0%				
Style	8.0	10.0%		40.0%		
TBS	82.0		100.0%			
Telemundo	22.2	40.0%				
TLC	78.0	49.0%			24.6%	
Thematic Multiplex SM	24.5 <sup>5</sup>	100.0%				
Thriller Max	*		100.0%			
TNT	81.6		100.0%			
Travel Channel	52.3	49.0%			24.6%	
TCM	45.0		100.0%			
USA	81.0	21.0%				
Viewers Choice 1-10	*	11.7%	17.0%	11.0%	20.0%	
WE (formerly Romance)	25.0					75.0%
Wmax	*		100.0%			

**Notes:**

<sup>1</sup> In addition to cable, other services such as MMDS (wireless cable), SMATV (satellite master antenna television), satellite, including DBS (direct broadcast satellite) and HSD (home satellite dish), broadcast television, and LPTV (low power television) may distribute these signals. Subscriber figures may include these non-cable services.

<sup>2</sup> Indicates that subscribership count is unknown or not available.

<sup>3</sup> CNN International subscribership of 10 million includes domestic US subscribers only. CNN International has 129 million subscribers outside the U.S.

<sup>4</sup> HBO subscriber numbers include HBO Latino, HBO Plus, HBO Signature, HBO Comedy, HBO Family, HBO Zone, and Cinemax, 5 Star Max, @ Max, MoreMax, ActionMax, Outer Max, Thriller Max and W Max.

<sup>5</sup> Encore's Thematic Multiplex subscriber numbers include Encore Love Stories, Encore Westerns, Encore Mystery, Encore Action, Encore True Stories and Encore WAM.

**Sources:**

NCTA, *Directory of Cable Networks*, Cable Television Developments 2001, at 25-146.

GemstarTV Guide International, at <http://www.gemstartvguide.com/investors/shareholders.asp>.

ATT Broadband, at <http://www.attbroadband.com/services/other/Partners.html>.

**TABLE D-6**  
**Top 20 Programming Services by Subscribership**

Rank	Programming Network	Number of Subscribers (Millions)	MSO Ownership Interest in Network (%)
1	TBS	82.0	AOL Time Warner (100)
2	Discovery Channel	81.7	Liberty Media (49), Cox (24.6)
3	TNT	81.6	AOL Time Warner (100)
4	ESPN	81.0	
5	USA Network	81.0	Liberty Media (21)
6	Fox Family Channel	80.5	
7	A&E	80.4	
8	TNN	80.1	
9	Lifetime Television	79.9	
10	Nickelodeon/Nick at Nite	79.8	
11	CNN	79.7	AOL Time Warner (100)
12	C-SPAN	79.4	
13	The Weather Channel	78.9	
14	TLC	78.0	Liberty Media (49), Cox (24.6)
15	MTV	77.3	
16	QVC	77.0	Comcast (57), Liberty Media (43)
17	CNN Headline News	76.2	AOL Time Warner (100)
18	CNBC	76.0	
19	AMC	75.9	Cablevision (75)
20	VH1	74.2	

**Notes:**

In addition to cable, other services such as MMDS (wireless cable), SMATV (satellite master antenna television), satellite, including HSD (home satellite dish) and DBS (direct broadcast satellite), broadcast television and LPTV (low power television) may distribute these signals. Subscriber figures may include these non-cable services. Cable affiliates provide 95 percent of funding for C-SPAN, but have no ownership or program control interests. DBS licenses provide the other five percent of funding and also have no ownership or program control interests.

**Source:**

NCTA, *Top 20 Cable Networks*, Cable Television Developments 2001, at 22-23.



**TABLE D-7**  
**Top 20 Programming Services by Prime Time Rating**

Rank	Programming Service	MSO with Ownership Interest (%)
1	Lifetime Television	
2	USA Network	Liberty Media (21)
3	TNT	AOL Time Warner (100)
4	Cartoon Network	AOL Time Warner (100)
5	TBS	AOL Time Warner (100)
6	Nick at Night	
7	A&E	
8	Discovery Channel	Liberty Media (49), Cox (24.6)
9	WGN-C	
10	TNN	
11	History Channel	
12	ESPN	
13	TLC	Liberty Media (49), Cox (24.6)
14	MTV	
15	FX	
16	Sci-Fi	Liberty Media (19.7)
17	Fox News	
18	TV Land	
19	BET	
20	HGTV	

**Source:**

Paul Kagan Assocs., Inc., *Day Part Ratings Averages, Prime Time (3<sup>rd</sup> Quarter)*, Cable Program Investor, Sept. 11, 2001, at 6.

SEPARATE STATEMENT OF  
COMMISSIONER KEVIN J. MARTIN

Re: *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, CS Docket No. 01-129*

In 1992, Congress instructed the FCC to “annually report to Congress on the status of competition in the market for the delivery of video programming.”<sup>647</sup> I support the report we adopt today, but I write separately to express my concern with some aspects of the approach the report takes in analyzing market structure and the extent of concentration. Specifically, I question whether the relevant product market is properly defined.

The report refers repeatedly to “the market for the delivery of video programming,” acknowledging that this is the relevant market for our analysis. The Communications Act defines “video programming” as “programming provided by, or generally considered comparable to programming provided by, a *television broadcast station*.”<sup>648</sup> Accordingly, the report describes as “competitors” in the market for the delivery of video programming entities such as broadcasters, cable operators, and DBS operators. With no explanation, however, the section addressing “Horizontal Issues in the Market for Delivery of Video Programming” limits the competitive analysis to only a subset of that market—the market for the delivery of *multichannel* video programming.<sup>649</sup> In so doing, the report eliminates broadcasters from the analysis, despite the fact that several commenters argued for their inclusion.<sup>650</sup>

It may be true that broadcast is not a statistically significant competitor to satellite or cable as a distribution platform, or that broadcasters and MVPDs do not compete in the same economic market, and thus the relevant market analysis *should* be limited to multichannel video programming. Nevertheless, given the plain language of the statute and the specific requests of commenters to consider broadcasters’ role in the marketplace, I would have preferred either to analyze the market for *all* video programming (and therefore include broadcasters as competitors), or to explain in a direct fashion why an analysis of only the *multichannel* video programming marketplace is more appropriate.

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<sup>647</sup> 47 U.S.C. § 628(g).

<sup>648</sup> *Id.* at § 522(20).

<sup>649</sup> The Report states, “The video programming market is comprised of two separate but related markets: (a) the market for the distribution of *multichannel* video programming to households, and (b) the market for the purchase of video programming by MVPDs.” *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 01-129, Eighth Annual Report, at ¶ 116 (adopted Dec. 27, 2001) (emphasis added).

<sup>650</sup> *See, e.g.*, AT&T Comments at 22.