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

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.[187] Kagan also predicts that total DBS industry revenue will triple from $8.8 billion in 2000 to nearly $26 billion in 2010.[188]

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.[189] DBS's share of MVPD households has grown to over 18 percent nationally.[190] It is estimated that total DBS industry revenue for 2001 will total $12.1 billion, a 37.5 percent increase over 2000.[191] DirecTV, which reported revenues of $2.7 billion for the first six months of

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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).

[184] 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.

[185] General Motors, *GM's Hughes Electronics To Merge With EchoStar Communications* (press release), Oct. 10, 2001.

[186] *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).

[187] Paul Kagan Assocs., Inc., *The State of DBS 2001* ("DBS Databook"), Dec. 2000, at 5.

[188] *Id.* at 6. Kagan predicts that interactive television services and advertising will be a major factor in this growth.

[189] 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.

[190] 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.

[191] DBS Databook at 6.

2001,[192] is the nation's leading DBS service and the third largest distributor of multichannel video programming.[193] 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.[194] 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.[195] EchoStar is now the sixth largest MVPD in the United States.[196] 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.[197] Although Dominion's transponders are currently located on an EchoStar satellite, Sky Angel subscribers must use a separate antenna to receive DISH Network programming.[198]

58. SBCA, the national trade organization of the satellite television industry, states that DBS is gaining over 8,500 subscribers per day.[199] Penetration by state varies from a low of less than two percent[200] to a high of more than 40 percent.[201] 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.[202] 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.[203] 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.[204]

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

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[192] DirecTV Comments at 11.

[193] NCTA Comments at 7-8.

[194] DirecTV Comments at 11.

[195] EchoStar Comments at 1.

[196] NCTA Comments at 8.

[197] http://www.skyangel.com/HTML%20Site/Body%20Pages/FAQ/faq.htm.

[198] *Id.*

[199] SBCA Comments at 5, Table 3.

[200] 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.

[201] SBCA Comments at 3-4 and App. A.

[202] *Id.* at 4 and App. A.

[203] DirecTV Comments at 13.

[204] *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."

percent of its customers to whom it is available take a local channel package.[205] As of August 2001, DirecTV offers for $5.99 the local affiliates of ABC, CBS, NBC, and FOX in 41 markets, and a national PBS feed with every local station package.[206] DirecTV indicates that it will offer all required local broadcast stations in these markets on January 1, 2002.[207] 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.[208] 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.[209]

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.[210] The satellite industry challenged the SHVIA must-carry provisions.[211] 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.[212] 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.[213] 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

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[205] *Id.* at 12-13.

[206] *Id. See also* http://www.skyreport.com/skyreport/local.htm.

[207] 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).

[208] *See* http://www.skyreport.com/skyreport/local.htm.

[209] *LTVS Plans To Fill Void Left By DBS Operators*, Comm. Daily, Aug. 29, 2001, at 3.

[210] *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).

[211] 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.

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

[213] *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*.

compete effectively with cable operators.[214] SBCA further states that the program access rules should be extended to cover all vertically integrated programming, regardless of how it is delivered.[215] NCTA, in its comments, on the other hand, states that DBS is firmly entrenched as a competitor to cable,[216] and that DBS is constraining cable prices.[217] Given the changes in the MVPD marketplace, NCTA believes that the program access limitations on exclusivity should sunset.[218]

62. ***Broadband Satellite Services.*** Both DirecTV and EchoStar now offer two-way Internet access services to their subscribers.[219] 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.[220] EchoStar offers a similar service, called Starband, in cooperation with a subsidiary of Gilat.[221] 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.[222]

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.[223] DirecTV also carries Home Box Office ("HBO") and select pay-per-view movies in HDTV format.[224] EchoStar carries HBO, Showtime, CBS, and select pay-per-view movies in HDTV format.[225]

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[214] 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.

[215] 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.

[216] NCTA Comments at 6-13.

[217] *Id.* at 13-17.

[218] *Id.* at 36-39.

[219] SBCA Comments at 5-6.

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

[221] 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.

[222] *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.

[223] Monica Hogan, *DirecTV Readies HDTV Sports Net*, Multichannel News, Sept. 4, 2001.

[224] *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.

[225] 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

(continued....)

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").[226] 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.[227] This allocation requires that MVDDS not cause harmful interference to incumbent DBS services.[228] The Commission also adopted a *Further Notice of Proposed Rulemaking* seeking comment on technical and service rules for licensing the new services.[229] 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."[230] The Mitre Report indicates that sharing of the 12 GHz band is feasible and provides suggested mechanisms to mitigate potential interference to DBS operations.[231] A separate company, MDS America, has also proposed reusing these frequencies, and has conducted tests it claims show no interference.[232] A third company, PDC Broadband Corporation has also filed for permission to reuse this band for terrestrial services.[233]

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.[234] 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.[235] Northpoint believes

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$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.

[226] *See 2000 Report*, 16 FCC Rcd at 6043.

[227] *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).

[228] *See* 47 C.F.R. § 2.106, fn. S5.490.

[229] *See New Fixed Satellite Services Order*, n. 227 *supra*.

[230] 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.

[231] 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.

[232] *MDS America Says Test Show It Can Share Ku-Band Without DBS Interference*, TR Daily, Oct. 12, 2001.

[233] *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.

[234] Northpoint Comments at 3-6.

[235] *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.[236]

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."[237] SBCA proposes a solution, allowing MVDDS services in higher frequency bands already allocated for point-to-multipoint video and data services.[238] 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.[239] NRTC also raises concerns about MVDDS interference with DBS service.[240]

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.[241] SBCA states, however, that "C-band remains the delivery vehicle for a core contingent of satellite subscribers,"[242] and "that satellite programmers remain committed to offering programming to this sector of the industry."[243] There are now four remaining C-Band programming distributors, Gemstar-TV Guide Superstar/Netlink Group, DSI Distributing, Satellite Receivers, Ltd., and the NRTC.[244]

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.[245]

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[236] *Id.* at 8-9.

[237] SBCA Comments at 10-13.

[238] *Id.* at 14.

[239] EchoStar Comments at 14-15; DirecTV Comments at 5-6.

[240] 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.

[241] SBCA Comments at 4-5, Tables 1 and 3.

[242] 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.

[243] SBCA Comments at 3.

[244] Satellite Business News, Inc., *Satellite Receivers Buys Disney's C-Band Subscribers,* Satellite Business News FAXUpdate, June 15, 2001.

[245] *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.[246] 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.[247] 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.[248] 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.[249] *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.[250] The number of MMDS subscribers, however, continues to hover around 700,000.[251] MMDS

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[246] *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).

[247] *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).

[248] *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).

[249] *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).

[250] *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.

[251] NCTA, *Cable & Telecommunications Industry Overview 2001*, Cable Television Developments 2001, at 11.

providers, such as WorldCom and Nucentrix,[252] 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.[253] 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,[254] and a Final Report was issued in March 2001.[255] 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.[256] 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.[257] 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.[258]

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-

[252] 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.

[253] 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; Sprint, *Sprint History* at http://www.sprint.com/sprint/ir/sd/sh.html.

[254] *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).

[255] *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).

[256] WCA Comments at 1-2. *See Program Access NPRM*, n. 213 *supra*.

[257] WCA Comments at 3-4.

[258] *Id.* at 4-5.

way.[259] 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").[260] 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.[261] Some SMATV systems use microwave transmissions and wires to serve multiple buildings that are not commonly owned.[262] 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.[263] Because SMATV systems do not use public rights-of-way, and are technically not cable operators, they have been ineligible for CARS licenses.[264] 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.[265] Most SMATV operators serve approximately 3,000-4,000 customers, but the larger ones serve

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[259] 47 U.S.C. § 522(7).

[260] 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.

[261] 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.

[262] *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).

[263] *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).

[264] 47 C.F.R. § 78.13.

[265] 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.[266] As of July 2001, SMATV subscribership remained unchanged from last year at 1.5 million subscribers.[267]

76. In terms of service offerings, private cable operators generally offer the same basic service tiers that are offered by franchised cable operators.[268] 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.[269] 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.[270] 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.[271] 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.[272]

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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[266] *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.

[267] NCTA Comments at 7.

[268] 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.

[269] *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.

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

[271] 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.

[272] *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.[273] 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.[274] Total television broadcast advertising revenues reached $41 billion in 2000, a 12.2 percent increase over 1999.[275] 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.[276] In comparison, cable programming networks earned $10.3 billion in advertising revenue in 2000, an increase of 24 percent over 1999.[277]

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.[278] 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.[279]

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

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[273] *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).

[274] *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).

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

[276] *Id.*

[277] NCTA, *Cable Advertising Revenue: 1984-2000 (In Millions)*, Cable Television Developments 2001, at 11.

[278] 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.

[279] *Id.* at 3.

households, compared to 59 percent in the previous year.[280] For all-day (24-hour) viewing, programming 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.[281]

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.[282] 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.[283]

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.[284] 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.[285] 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.[286] NBC airs *Crossing Jordan* in prime time and *The Tonight Show With Jay Leno* in HDTV.[287] PBS will also broadcast two or three documentaries per month in HDTV.[288]

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[280] Nielsen Media Research, *Viewing Sources – Primetime, 1984-85 to 2000-01.*

[281] Nielsen Media Research, *NTI Total Viewing Sources Reports, 1999-2001.*

[282] *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.

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

[284] *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.

[285] *Id.*

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

[287] *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.

[288] *Id.* at 36.

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 - 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 Subcomittee (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.[289]

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.[290] 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.[291] 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.[292] 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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[289] *Id.*

[290] 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.

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

[292] *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.[293] 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.[294] Several low power television stations claim that LPTV stations need must-carry status to survive.[295] 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.[296]

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.[297] 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.[298] Additionally, as of July 2001, 41 million residential Web users had accessed streaming video.[299] 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.[300] As we reported last year, broadcast-quality Internet video service requires a

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[293] 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.

[294] *See* Federal Communications Commission, *Broadcast Station Totals as of June 30, 2001*, FCC News Release (July 13, 2001).

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

[296] WBGT-LP Comments at 2. *See* 47 C.F.R. § 76.54. *See also* WJAN-CA and WQBC-CA Comments.

[297] Internet video provided in real-time is also known as "streaming video."

[298] Amanda Cantrell, *Growth of Internet Access Slows Dramatically in U.S.*, The Industry Standard, Aug. 14, 2001.

[299] 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).

[300] 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=; 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.dallas news.com/cgi-bin/...hnology/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*

(continued....)

high-speed broadband connection of about 300 kbps or higher, which most current broadband providers cannot yet guarantee.[301] In addition, high-speed Internet subscribership still is limited, with only a few more than ten million subscribers.[302] 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.[303] We reported that among others, Canadian-based JumpTV was seeking to stream U.S. television signals to Internet users in Canada.[304] Since our last *Report*, JumpTV applied for and then recently dropped its bid for copyright clearance to retransmit TV stations over the Internet.[305] 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.[306]

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 ESPNews over the Internet at the same time that Charter held distribution rights through license fees.[307] In June, Disney briefly revoked permission for Charter to carry ESPNews.[308] In turn, Charter replaced ESPNews in 250,000 homes with other programming.[309]

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

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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.

[301] *See 2000 Report*, 16 FCC Rcd at 6054.

[302] *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).

[303] *See 2000 Report*, 16 FCC Rcd at 6055-6.

[304] *Id.* at 6056.

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

[306] *Id.*

[307] *Mass Media*, Comm. Daily, Aug. 28, 2001, at 6; Sally Beatty, *Cable Operator Drops ESPNews, Escalating Dispute Over Video Streaming*, Wall Street Journal, July 2, 2001, at B22; John Higgins, *ESPNews Going Dark on Charter*, Broadcasting Cable Online, July 2, 2001, at 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=; *ESPN-Charter Dispute Shows Cable Fears of Video Streaming*, Comm. Daily, July 5, 2001, at 2.

[308] *Id.*

[309] *Id.*

the dominant software program for accessing Internet video, has over 24.7 million users.[310] It also estimates that RealNetworks' RealPlayer has more than 24.4 million users.[311] The amount of video programming content on the Internet also continues to grow.[312] 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.[313] 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.[314] MTV plans to launch a channel designed specifically for access via the Internet.[315] The channel will be called MTV Live, and will draw heavily from its library of live performances by various acts.[316] 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.[317]

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.[318] Arbitron and Lariat continue to measure and report the viewership of

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[310] *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.

[311] *Id.*

[312] 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.

[313] 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.

[314] 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.

[315] 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.

[316] 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.

[317] 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.

[318] Ann Donahue, *Aerocast Goes Full Speed Ahead*, Video Business Online, Aug. 14, 2001, at http://www.videobusiness.com/news/081401_aerocast_streaming_video.asp.

streaming video.[319] In addition, The Media Channel continues to catalogue and list available Internet video programming.[320]

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 Streaming Media Alliance ("ISMA") to accelerate the market adoption of open standards for streaming media over IP.[321]

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.[322] The home video industry views cable television, direct broadcast satellite services, and broadcast television as its competition.[323] 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.[324] 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.[325]

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.[326] By the end of 2000, the number of homes with DVD players reached approximately 14.5 million, and it is estimated that 25

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[319] *See* http://www.lariat.com; http://internet.arbitron.com/webcast_index.htm.

[320] *See* http://www.mediachannel.com/info.htm.

[321] 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; 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.

[322] *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.

[323] *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.

[324] *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.

[325] Hollywood Entertainment 10-K, Viacom 10-K; VSDA Report at 26.

[326] 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.

million homes will have DVDs by the end of 2001.[327] In addition, about two million homes have laser disc players.[328] U.S. consumers spent approximately $19.04 billion renting and buying prerecorded video in 2000, almost a 10 percent increase over the $17.36 billion we reported last year.[329] Total rental revenue was $8.25 billion in 2000, compared to $8.07 billion in 1999, an increase of 2.2 percent.[330] Total revenue from video sales increased to $10.79 billion in 2000, up from $9.24 billion in 1999, an increase of 17 percent.[331] 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.[332] The video retail industry is the largest source of revenue for movie studios, generating approximately half of their revenues in 2000.[333] In this regard, we note that, since 1997, the largest video chains and several movie studios have shared rental revenues.[334]

97. The video retail industry is considered competitive, with about 19,800 video specialty stores selling or renting home video programming.[335] There also are more than 8,000 retail outlets, primarily supermarkets and drug stores, that rent videos.[336] 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.[337] In recent years, the home video industry has undergone a period of consolidation, with

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[327] 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.

[328] Tom Shales, *Shall We Dance? With DVD, Indeed*, Washington Post, June 2, 1999, at C1.

[329] VSDA Report at 12, 16; *2000 Report*, 16 FCC Rcd at 6057-8.

[330] VSDA Report at 12.

[331] *Id.* at 16.

[332] *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.

[333] *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).

[334] VSDA Report at 13-14; *2000 Report*, 16 FCC Rcd at 6058.

[335] *See, e.g.*, VSDA Report at 8; Viacom 10-K.

[336] *Id.*

[337] VSDA Report at 8-10. Videos also can be borrowed from public libraries. Blockbuster 10-K; Hollywood Entertainment 10-K; Viacom 10-K.

many independent operators selling to larger concerns or closing their businesses.[338] The Internet also has become a source for video rentals[339] and sales.[340]

98. Another home video technology is the personal video recorder ("PVR").[341] One source reports that 500,000 PVRs have been sold since this technology was introduced two years ago.[342] 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.[343] In August 2001, Sonicblue acquired ReplayTV, and announced that it again would sell PVRs over the Internet and at select retail outlets.[344] TiVo is offered on a subscription basis for approximately $10 a month.[345] 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.[346] 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.[347] In addition, EchoStar offers set-top boxes, the DISHPlayer and the DishPVR, with PVR capabilities.[348]

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[338] 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.

[339] 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.

[340] 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 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.

[341] *See 2000 Report*, 16 FCC Rcd at 6059-69. *See also 1999 Report*, 15 FCC Rcd at 1035.

[342] *See* Michael Grotticelli, *Reviving ReplayTV,* Broadcasting & Cable, Sept. 10, 2001, at 32.

[343] *2000 Report*, 16 FCC Rcd at 6059-60.

[344] 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.

[345] 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.

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

[347] *See* http://www.directv.com; http://www.utimatetv.com.

[348] http://www.dishnetwork.com/content/products/receivers/index.shtml.

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;[349] (2) provide transmission of video programming on a common carrier basis under Title II of the Communications Act;[350] (3) provide video programming as a cable system under Title VI of the Communications Act;[351] or (4) provide video programming by means of an open video system ("OVS").[352]

100. ILECs have largely exited the video business.[353] 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,[354] but has since sold it to Craig Wireless Honolulu, Inc.[355] BellSouth completed its restructuring of its MMDS business by transitioning its MMDS customers to EchoStar or other video providers.[356]

102. ***In-Region Cable Franchises***. At one point, Ameritech, now owned by SBC, was the most significant LEC provider of in-region cable service.[357] SBC sold the systems to WideOpenWest in May of this year.[358] 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.[359] We previously reported that GTE operated competitive cable franchises in Ventura County, California, and St. Petersburg and Clearwater,

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[349] 47 U.S.C. § 571(a)(1).

[350] 47 U.S.C. § 571(a)(2).

[351] 47 U.S.C. § 571(a)(3).

[352] 47 U.S.C. § 571(a)(3)-(4).

[353] *1998 Report*, 13 FCC Rcd at 24331-2; *2000 Report*, 16 FCC Rcd at 6061.

[354] *1998 Report*, 13 FCC Rcd at 24534.

[355] 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.

[356] *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.

[357] *1999 Report*, 15 FCC Rcd at 1036-37.

[358] *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.

[359] 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.

Florida, and non-competitive franchise in Cerritos, California.[360] Verizon, however, reportedly is seeking to sell these assets.[361] 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.[362] 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 DirecTV DBS Service.[363] The DPUC granted this permission, with conditions to ease the transition of SNET's cable subscribers.[364]

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.[365] 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.[366] 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,[367] and

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[360] *1998 Report*, 13 FCC Rcd at 24355.

[361] *Verizon Trying to Unload GTE Cable TV Assets*, TR Daily, July 3, 2000.

[362] *2000 Report*, 16 FCC Rcd at 6062.

[363] 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.

[364] *See SNET Application.*

[365] *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.

[366] 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.

[367] Karen Brown, *Getting the Picture? Telcos Struggle With Unfocused Video Market*, Broadband Week, June 4, 2001.

Verizon is investigating whether to offer the service to MDUs in its territory.[368] Between 5,000 and 10,000 households currently subscribe to ADSL video-on-demand service.[369]

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.[370] 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.[371]

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.[372] 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."[373] We previously reported on the activities of Seren, a wholly owned subsidiary of Minneapolis-based Northern States Power,[374] and Sigecom, funded by Blackstone Capital and a joint venture of Southern Indiana Gas and Electric and Utilicom.[375] 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,[376] and Seren began service in St. Joseph, Minnesota.[377] Finally, Braintree, Massachusetts, granted a franchise to the municipal electric utility, Braintree Electric Light Department, which began offering cable service in February 2001.[378]

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

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[368] Richard Williamson and Bill Scanlon, *DSL Video Service Goes Condo*, Interactive Week, Apr. 15, 2001.

[369] Roger Bindl, Next Level Communications, *Video In Telephony*, Nov. 9, 2001.

[370] *See, e.g.*, *1999 Report*, 15 FCC Rcd at 1042.

[371] *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.

[372] *Mass Media*, Comm. Daily, Apr. 12, 2001, at 8.

[373] RCN Comments at 5.

[374] *1999 Report*, 15 FCC Rcd at 1042.

[375] *2000 Report*, 16 FCC Rcd at 6065.

[376] Sigecom, *TOTALink Granted Competitive Cable Television Franchise by Louisville Board of Alderman* (press release), Nov. 14, 2000.

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

[378] *Mass Media*, Comm. Daily, Feb. 23, 2001, at 10.

services to Houston beginning in 2002.[379] 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 the market.[380] 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").[381] Everest offers service in Lenexa, Kansas, a suburb of Kansas City,[382] ExOp entered Kearney, Missouri, as a CLEC, but Utilicorp acquired it and added digital cable television services using VDSL technology.[383] 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.[384] Other communities with video service from their utility companies include Grant County, Washington,[385] Alameda, California, Gainesville, Florida, and Tacoma, Washington.[386]

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.[387] 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 has 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.[388]

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[379] Joe Estrella and Linda Haugsted, *Despite Some Losses, Overbuilds Persist*, Multichannel News, June 11, 2001, at 56.

[380] *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.

[381] Utilicorp Comments at 1.

[382] *Id.* at 2-3.

[383] *Id.* at 3-4. ExOp serves 48 percent of residential households and 94 percent of business customers.

[384] *Id.* at 4-8.

[385] Dennis K. Berman, *Isolated County Gambles With Broadband Network*, Wall Street Journal, Aug. 17, 2001, at B1.

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

[387] "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.

[388] RCN Comments at 3-4.

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 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.[389]

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.[390] RCN reports that it continues to build out its network and increase penetration in its chosen markets.[391] 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.[392] RCN indicates that there has been "substantial growth in the Boston, New York, Philadelphia, Washington, D.C., Chicago, Los Angeles, and San Francisco venues."[393] RCN reports a total of 443,011 video subscribers, although some of these are subscribers to incumbent cable systems it operates.[394]

110. WideOpenWest ("WOW") recently became the second largest overbuilder with its acquisition of Ameritech New Media's cable systems.[395] 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.[396] 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.[397] The systems it is purchasing from Ameritech are all in the Midwest,[398] and served, at last report, approximately 300,000 subscribers.[399]

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[389] 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.

[390] *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.

[391] RCN Comments at 5.

[392] *Id.* at 5-6.

[393] *Id.* at 6.

[394] *Id.* at App. B.

[395] WOW, *WOW Acquires Ameritech's 310,000 Cable TV Subscribers* (press release), Dec. 3, 2001, at 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.

[396] WOW Reply Comments at 4.

[397] *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.

[398] For details, *see 1999 Report*, 15 FCC Rcd at 1036-7.

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