TESTIMONY OF KYLE McSLARROW
PRESIDENT AND CEO
NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION

on

COMPETITION AND CONVERGENCE

before the

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE
WASHINGTON, D.C.

MARCH 30, 2006

I. INTRODUCTION

Good afternoon, Mr. Chairman, Senator Inouye, and Members of the Committee. My name is Kyle McSlarrow and I serve as the President and Chief Executive Officer of the National Cable & Telecommunications Association. NCTA is the principal trade association for the U.S. cable industry, representing cable operators serving more than 90 percent of the nation's cable television households and more than 200 cable program networks. The cable industry is the nation's largest broadband provider of high speed Internet access after investing $100 billion over ten years to build a two-way interactive network with fiber optic technology. Cable companies also provide state-of-the-art digital telephone service to millions of American consumers.

Thank you for inviting me today to comment on the state of competition and convergence in the telecommunications industry. In response to a growing number of competitors and the deregulatory environment created by the 1996 Telecommunications Act, cable operators invested over $100 billion of private risk capital to embark on a nationwide upgrade of their facilities. They did so without any government subsidies, programs, or guarantees that they would get a return on their investment. As a result, cable companies now provide consumers with a wide variety of advanced services, including digital video, High Definition Television (HDTV), high-speed Internet access, and telephone service – both traditional circuit-switched voice service and digital telephony using Voice over Internet Protocol (VoIP).[1] In each of these markets, cable faces vigorous competition from several different service providers.

---

[1] Some cable operators are also beginning to add wireless telephone service to their bundle, as Time Warner did recently in its partnership with Sprint.

With regard to our core business, the video marketplace is more competitive than ever before. Fifteen years ago, cable commanded 95 percent of the multichannel television market. Today, because of fierce competition from Direct Broadcast Satellite (DBS) and other broadband video providers, cable's market share has fallen to 68.3 percent of multichannel video households according to November 2005 statistics from Kagan. As the FCC noted just a few weeks ago, "almost all consumers have the choice between over-the-air broadcast television, a cable service, and at least two DBS providers" as well as "emerging technologies, such as digital broadcast spectrum, fiber to the home, or video over the Internet."[2] And now the Regional Bell Operating Companies (RBOCs) are entering the fray, bringing with them annual revenues of $153 billion – more than twice those of the entire cable operator industry.

New service providers are deploying new video technologies every day, including Internet-based services, cell phone providers, wireless computer manufacturers, and consumer electronics suppliers. For example, companies like USDTV have created an over-the-air digital video service (featuring dozens of DVD quality broadcast and cable program networks) using spectrum leased from local broadcasters. Similarly, consumers now have access to video through their wireless phones, IPODs, and laptops and can customize their viewing experience at home and on the road. For example, on March 15, 2006, AOL and Warner Studios announced the launch of ***In2TV***, an Internet-based broadband television service which allows consumers to select from among 30 different

[2] Twelfth Annual Report on the Status of Competition in the Market for the Delivery of Video Programming, FCC 06-11 (released March 3, 2006) at paragraph 5.

television series and program their own on-demand TV channel.[3] Similarly, Verizon Wireless's ***V-Cast*** video service, which is "available to more than 148 million people in 181 major metropolitan areas and is expanding coast to coast," allows customers to use their cell phones to "watch broadband-quality movie trailers, sports highlights, news and video on demand," play games, and listen to music.[4] Using Digital Video Recorders for cable and broadcast sources or Internet-based video technologies like **Akimbo** and **Slingbox**, Americans today can: (1) watch television at home "real time" or "time shift" a variety of programs for later viewing; (2) "space shift" programming on a home network to view it on another device in another room; or (3) "sling" it to the Internet for viewing on a laptop in a hotel room or conference center anywhere in the world that has a connection to the Internet. Consumers are the beneficiaries of this highly competitive landscape, where they now have a growing number of choices of advanced services from several different providers.

With regard to new services, cable pioneered residential high-speed Internet access. At a time when telephone companies left DSL technology sitting on the shelf so they could sell customers extra lines for faxes and dial-up access to the Internet, cable introduced broadband Internet access at speeds 50-100 times those of dial-up. After upgrading their one-way analog facilities to interactive digital platforms, cable operators now offer broadband access to 109 million households and serve 25.4 million of them – a penetration rate of more than 23 percent.

---

[3] PCMag.com Productwire: In2TV

Using its new broadband facilities, cable also entered the telephone market, providing consumers with their first-facilities based alternative to the local telephone companies which have dominated the voice market for almost a hundred years. Cable currently provides traditional circuit-switched analog telephone service and VoIP-based digital telephone service to more than 5.5 million customers, offering these and millions more consumers a "triple play" of video, data, and voice services and the benefits of "one-stop shopping" with their local cable company.

The introduction of interactive broadband services by cable operators has prompted a competitive response from other industries. Telephone and DBS companies, for example, initially joined forces to offer their own packages of video, voice, and data services. DBS obtained exclusive sports programming such as NFL's Sunday Ticket and increased the number of channels they offered and the types of service available, including HDTV. The phone companies took their DSL technology off the shelf and deployed it to compete with cable modems; DSL now serves about 17 million customers. Today, Verizon and AT&T are investing billions of dollars to enter the video marketplace around the country.

The bottom line is that these are all signs of a competitive marketplace: several different providers of a wide array of services vie with each other for customers, each trying to differentiate themselves with unique offerings while trying to match those of their competitors.

---

[4] Verizon Wireless ***Connect*** magazine, Spring 2006 issue, pp. 2 and 10, and verizonwireless.com.

II. CONVERGENCE IN THE COMPETITIVE MARKETPLACE

The cable industry supports reviewing and updating the Telecommunications Act of 1996 and further reducing unnecessary economic regulation. We favor a level playing field where like services are treated alike and necessary social obligations (such as the Universal Service Fund, CALEA, E-911, Equal Employment Opportunity, non-discrimination, privacy rules, and access for the disabled) apply equally to all providers. We are opposed to attempts by one industry to secure legislation that would have the government pick winners and losers or that favors one technology over another.

Although there is already vigorous competition in the video marketplace, the prospect of major new competitors with the resources of the Bell Operating Companies should be beneficial to consumers – as long as competition is governed by marketplace forces and is not artificially skewed by rules and regulations that give some competitors an unfair advantage over others. The marketplace – not government regulation – will impel all competitors to innovate in the packaging and pricing of new services to maximize value to consumers.

Moreover, in taking a fresh look at the Telecommunications Act of 1996, the video marketplace is only one piece of a larger puzzle that should be addressed by this Committee in its entirety. Perhaps the bigger challenge is how best to increase voice competition at a time when incumbent telephone companies (ILECs, including the RBOCs) still control 85 percent of the residential and small business markets, and more importantly, the public switched telephone network. In an era of rising telephone rates, $1.50 directory assistance calls, and burgeoning "regulatory cost recovery fees" on our phone bills, legislation to promote competition should include all markets, especially the

voice market. As this committee moves forward with the drafting a bill this spring, I would encourage it to also focus on the problem of interconnection so that incumbent telephone companies cannot lock out alternative voice service providers – including cable, broadband overbuilders, and wireless companies.

Interconnection

Competitive voice services cannot survive without physical interconnection to the Bell-controlled public switched telephone network (PSTN) at reasonable rates. Interconnection is necessary to reach customers on the Bells' lines, and these customers constitute the vast majority of wireline users in the United States.

There is, very simply, nothing quite like the public switched telephone network in the video or data worlds. The PSTN was built by a regulated monopoly which had access to captive rate-payers and guaranteed rates of return on its investments. For many years, the PSTN was the only voice network in the country and had no competition from other local or long distance telephone service providers. Interconnection to other domestic phone networks was not an issue, and the PSTN even provided all of the equipment that consumers were allowed to attach to the network. That changed in 1984 when under the terms of an antitrust consent decree, the original AT&T divested its local telephone networks and kept control of long distance operations. The consent decree created seven separate different regional telephone networks, and suddenly interconnection of separate networks and independently-owned telecommunications equipment became important. The significance of interconnection only increased as local competitors joined long distance providers in the telecommunications marketplace.

Unlike the PSTN, cable did not develop as a regulated monopoly, and alternative video distributors used different technologies like microwave relays and direct broadcast satellite. DBS operators did not need to interconnect with cable systems in order to compete, and the "network of networks" architecture of the Internet is distributed rather than centralized. However, as long as the PSTN maintains its unique position for voice services, the Bell companies who control it will have a correspondingly unique incentive and ability to frustrate competition by impeding interconnection with other voice providers, regardless of whether those providers use IP or some other technology.

The 1996 Telecommunications Act addressed the central challenge posed by the PSTN by providing interconnection rights to competitive local exchange carriers (CLECs) so they could exchange traffic with the Bells on an economic basis, without glitches or delays, in order to promote local voice competition.

Despite their claims that the phone market is "competitive," ten years after Congress enacted interconnection rules, the Bells still own the only ubiquitous phone network – serving more than 85 percent of the local residential and small business market. And they still serve as the "hub" to which all other carriers must connect in order to reach each others' customers.

With IP-enabled voice services providing a real opportunity for increased competition in the voice market, Congress must ensure that the rights to interconnection, collocation, and numbering guaranteed in the 1996 Act are available to all competing voice providers on a technology neutral basis. Facilities-based IP-enabled voice providers should have the right to interconnect with the PSTN *directly* – like a traditional CLEC – or *indirectly* through arrangements with a CLEC that already has an

interconnection agreement with an incumbent local exchange carrier. Congress must make clear that the right to interconnection is not technology-dependent and that digital voice is not relegated to second-class status. Limiting interconnection and related rights to providers of voice services using traditional technology will, perversely, penalize the introduction of new technology and ensure the Bells retain their continuing dominance in the voice market.

The time to act to ensure voice competition is now. Some states and incumbent telcos have already sought to limit interconnection rights to providers using traditional voice technology. Indeed, the files are replete with examples of the Bells stalling on any number of reasonable interconnection requests from even traditional competitors.

The Bells' consolidation makes the need for interconnection protections even more urgent. When the two largest CLECs in the market (AT&T and MCI) merged with the two largest Bells (SBC and Verizon), the most experienced and well-funded negotiators of interconnection agreements were removed from the competitive voice market. The AT&T/ BellSouth merger would only solidify the Bells' monopoly market power and make it more difficult for competitors to get a fair shake in interconnection negotiations.

III. CABLE HAS INVESTED $100 BILLION TO MEET THE CHALLENGES OF A FAST-CHANGING AND FIERCELY COMPETITIVE VIDEO MARKETPLACE

Cable is one of the great American success stories. Born in the foothills of Pennsylvania and Wyoming around 1950, cable started as a relay service for broadcast television in areas that had trouble receiving over-the-air signals. At that time, American

television consisted of two networks: NBC and CBS (followed by ABC in 1954 and National Education Television – later PBS – in 1966). Over the past 50 years, cable operators and programmers have revolutionized American television. There are now over 530 national cable programming networks which bring diversity, choice, and quality programming to American consumers.[5] Similarly, cable operators transformed one-way analog distribution systems into high speed broadband platforms that currently provide interactive digital services, including video, high definition television, high speed Internet access, and digital telephony. Cable entrepreneurs did all of this with private risk capital, not government funds.

With an investment of $100 billion since 1996, cable operators have replaced coaxial cable with fiber optic technology and installed new digital equipment in homes and system headends. The fruits of cable's investment in a two-way broadband network are evident in the number of advanced services offered on virtually every cable system today.[6]

Cable is Leading the Way to the Digital Transition

The cable industry continues to aggressively roll out and market high definition television service to the majority of American households, with a growing array of programming choices. As of September 2005, 96 million U.S. television households were passed by at least one cable system offering HDTV service, which represents all of

---

[5] *Twelfth Annual Report on the Status of Competition in the Market for the Delivery of Video Programming*, FCC 06-11 (released March 3, 2006), paragraph 21.

[6] In return for deregulation, the cable industry promised Congress and American consumers that it would provide: (1) facilities-based competition to the telephone

the top 100 designated market areas (DMAs). Of all 210 DMAs, a total of 198 markets were served by at least one cable system that offers high definition programming. Local cable systems also were carrying the digital signal of 681 broadcast stations, a six-fold increase from January 2003, when cable began rolling out HDTV with carriage of 92 such stations.

Cable customers are already enjoying a full complement of digital programming and advanced information services independently of the broadcasters' conversion to digital. Today, over 40 percent of U.S. cable customers (approximately 28 million) subscribe to digital cable services, which include a diverse array of program networks and music channels. Digital cable also gives subscribers the ability to block access to programming they believe is inappropriate for their children. All of cable's digital services can be enjoyed by consumers with analog TV sets who use digital set-top boxes that convert digital signals to analog. Cable companies are also deploying innovative interactive video services, along with Internet and digital telephone services.

Cable customers with HDTV sets have even more options and can receive 23 HD cable programming networks.[7] Cable operators are also voluntarily carrying the digital channels of a substantial number of over-the-air broadcast stations in addition to those stations' analog signals – either through retransmission consent agreements with

---

companies, and (2) a new generation of advanced information and video services – both of which we have done.

[7] The networks include Cinemax HDTV, Comcast SportsNet HDTV, Discovery HD Theater, ESPN HD, ESPN2 HD, FSN HD, HBO HD, HDNet, HDNet Movies, INHD, INHD2, MSG Networks in HD, NBA TV, NFL Network HD, Outdoor Channel 2 HD, Showtime HD, Spice HD, STARZ! HDTV, The Movie Channel HD, TNT in HD, Universal HD, and YES-HD.

individual commercial stations[8] or under a recent carriage agreement with public television stations. In particular:

- As of September 2005, cable operators were carrying commercial broadcasters' multicast programming in over 100 markets, including all of the top 10 markets and numerous small-to-midsized markets across the country. In Washington D.C., Comcast is carrying WJLA's local Weather Now channel (ABC) and WRC's Weather Plus channel (NBC), as well as WETA's Prime, Kids, and Plus channels (PBS).

- In January 2005, NCTA and the Association of Public Television Stations (APTS) entered into an agreement that ensures that local public television stations' digital programming – including multicast channels – is carried on cable systems serving the vast majority of cable customers across the nation. In April 2005, public television stations serving markets comprising over 80 percent of U.S. TV households and MSOs representing over 80 percent of cable subscribers ratified the agreement, and MSOs are adding digital PTV stations to their channel line-ups across the country.

Significantly, cable's contractual carriage agreement with public television stations was reached through private negotiations – not federal legislation or FCC regulations.

The vast majority of cable customers have analog television sets, and most of those sets – as in over-the-air households – are not equipped with digital set-top boxes. Today, cable operators provide the analog signals of virtually all local television stations, which can be viewed by all customers – those with and without digital boxes, and those with and without digital television sets. Operators also provide the digital signals of some, but not all, broadcast stations – especially those that provide compelling digital programming that is likely to enhance the value of cable service for the growing number of customers with high definition sets.

[8] As of September 30, 2005, cable operators voluntarily carried 681 digital broadcast

Cable's Video-on-Demand and Digital Video Recorders Put Customers in the Driver's Seat

As cable operators upgrade their systems with digital and two-way capabilities, they are offering more sophisticated interactive services. Such services are increasingly putting the control of media directly into the hands of consumers – allowing them to watch what they want, when they want.

With video-on-demand, consumers have virtually thousands of viewing options at their disposal. For instance, in March 2005, Comcast announced that digital cable customers viewed more than 100 million ON DEMAND programs, three times the number of ON DEMAND programs viewed in March 2004, and a 40 percent increase from the fourth quarter of 2004.[9] Comcast has expanded its library of on-demand programming to approximately 2,000 hours and recently signed a deal with Sony to provide a total lineup of about 100 movies a month from the Sony pictures and MGM libraries.[10] Comcast aims to boost its library to 10,000 hours in 2006.[11]

The cable industry has a distinct advantage in the video-on-demand marketplace. According to one analyst, "VoD is another arrow in the quiver of cable companies to retain existing customers and keep them from defecting to satellite."[12] Kagan Research estimates that at the end of 2005, 23.9 million U.S. households had access to VOD from

---

signals – a 124 percent increase over the 304 stations carried in December 2003.

9 "Comcast's Got Game," The Street.com, August 1, 2005.

10 "Who's going to win the living room wars?", The Wall Street Journal, April 25, 2005.

11 "Cable in full flower: On Demand Makes Content Easier to Access – and Ads Easier to Target," The Denver Post, April 11, 2005 at F-01.

12 "VoD Squad Takes on Satellite TV," Chicago Sun-Times.com, May 31, 2005, (available at http://www.suntimes.com/output/business/cst-fin-vod31.html).

their local cable provider and that number is likely to increase to 45.6 million by 2009.[13] Analysts expect VOD revenues to approach $1 billion this year and nearly $6 billion by 2013.[14]

Cable companies have accelerated deployment of digital video recorders (DVRs), which enable customers to capture video programming onto a hard drive in the set-top box and pause, fast forward, and manage other functions and applications. Cablevision, Comcast, Cox, and Time Warner Cable all widely deploy DVRs.

At the end of 2005, 4.5 million digital cable customers used a DVR service, an increase of 150 percent from 1.8 million customers at the end of 2004.[15] The direct-to-home satellite industry once commanded a sizable lead in DVR users, with 3.6 million customers at year-end 2004, but analysts expect the cable industry to aggressively grow its share of the market.[16] Kagan predicts 20 million cable DVR households by 2009, while DBS providers will have 14.5 million.[17]

Cable is Competing on Speed and Value in the High-Speed Data Services Tug-of-War

Cable's leadership in creating and developing the market for affordable residential high-speed Internet access has led to a profusion of competitive offerings. That

---

13 "2005 Broadband Cable Financial Databook," Kagan Research, at 12.

14 "Cable Talks, Wall Street Listens," Broadcasting & Cable, April 11, 2005, at 18.

15 Kagan Research, LLC, "MSOs Fast-Forward DVR Purchases," *Broadband Technology*, May 12, 2005, at 1-2.

16 Ibid.

17 Overall, the total number of MVPD customers with DVR functionality is likely to grow. The Yankee Group is forecasting 25 million DVR households by 2007 and Forrester Research is estimating 35.7 million DVR households by 2008 "Satellite,

leadership spurred the Regional Bell Operating Companies (RBOCs) in recent years to aggressively deploy digital subscriber line (DSL) service (which they had developed years earlier but kept on the shelf in order to sell customers second and third phone lines for fax machines and dial-up access to the Internet). The cable industry is now facing competition not only from DSL providers but also wireless, satellite, and broadband over power line providers.

Overall, the market for broadband continues to expand. High-speed lines serving residential and small business subscribers increased by 36 percent during 2004 to 35.3 million lines.[18] Leichtman Research Group estimates that by the end of 2005, the number of broadband homes surpassed 40 million.[19]

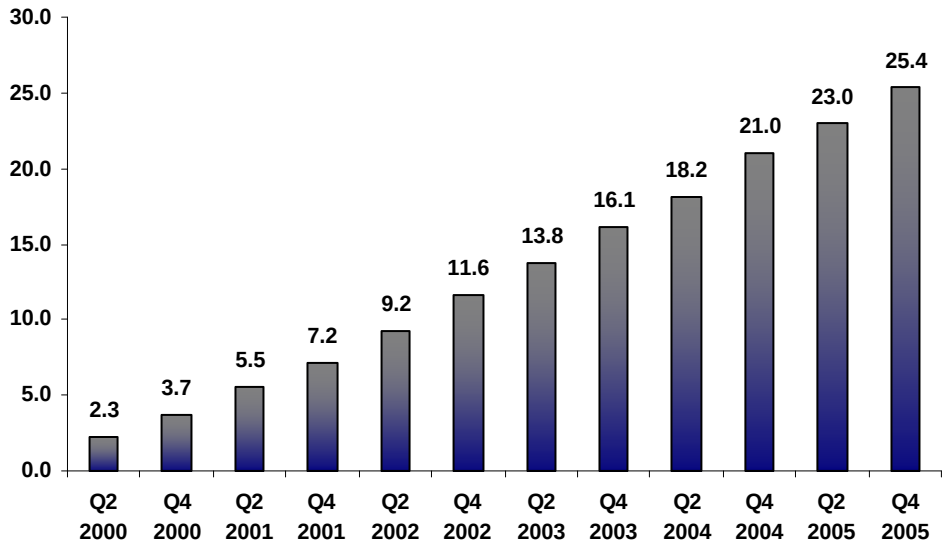
By the end of the fourth quarter of 2005, cable's high-speed Internet service had attracted 25.4 million customers (see Chart 1). More than one-quarter of all cable households today subscribe to cable's high-speed data service, and among those cable households with Internet access, nearly 30 percent are cable modem customers. Cable's broadband services will be available to more than 117 million homes, or 96 percent of U.S. households passed by cable, by year-end 2006 (see Chart 2).

Cable Give DVRs a Boost," Advertising Age, June 27, 2005; "Cable Firms Embracing Digital Video Recorders," Investor's Business Daily.

[18] "High-Speed Services for Internet Access: Status as of December 31, 2004," FCC Industry Analysis and Technology Division, Wireline Competition Bureau, July 2005, at 3.

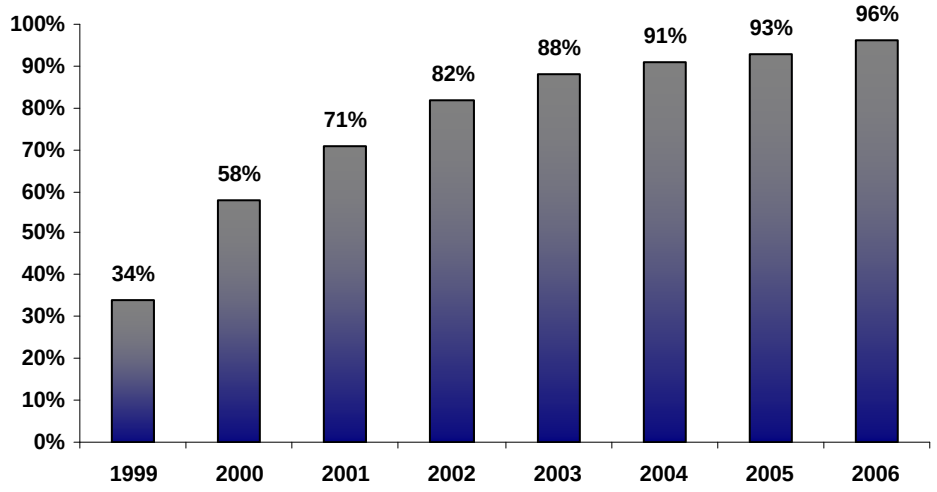
[19] Leichtman Research Group, *Research Notes*, 4Q2005, at 7.

Chart 1
Cable Modem Customers: 2000-2005 (in millions)



Source: NCTA estimates based on company data

Chart 2
Cable Broadband Availability as a Percentage of Homes Passed by Cable 1999-2006



Source: "Cable/Satellite: Trend Tracker 3Q05," Morgan Stanley Equity Research, October 21, 2005.

The high-speed Internet access market is far from saturated. For 2004, the FCC reported a 30 percent increase in cable modem connections, from 16.4 to 21.3 million lines, affirming similar estimates from the private sector.[20] Data from Leichtman Research Group reveal that total cable modem customers of the top ten multiple system operators grew 28 percent in 2004, from 15.3 to 19.6 million.[21] Morgan Stanley reported a 28 percent increase in cable modem customers last year, from 15.0 to 19.2 million; it is forecasting annual customer growth rates of 22 percent for 2005 and 18 percent for 2006.[22]

Phone companies remain formidable broadband competitors with their DSL offerings. Though cable continues to have the largest installed base – 25.4 million lines – compared to the Bells' nearly 16.4 million DSL lines, the phone carriers have been adding new lines at a furious rate. According to the FCC, advanced higher-speed DSL lines — defined as 200 Kbps for both upstream and downstream — increased 88 percent during 2004, compared to 36 percent for advanced cable lines.[23] An NCTA snapshot of second quarter data for 2004 and 2005 reveals Bell DSL net additions grew 40 percent, while cable modem subscriptions grew 25 percent.[24] The RBOCs together have been adding about one million DSL subscribers each quarter (see Chart 3**).**

---

[20] "High-Speed Services for Internet Access: Status as of December 31, 2004," FCC Industry Analysis and Technology Division, July 2005, at 6.

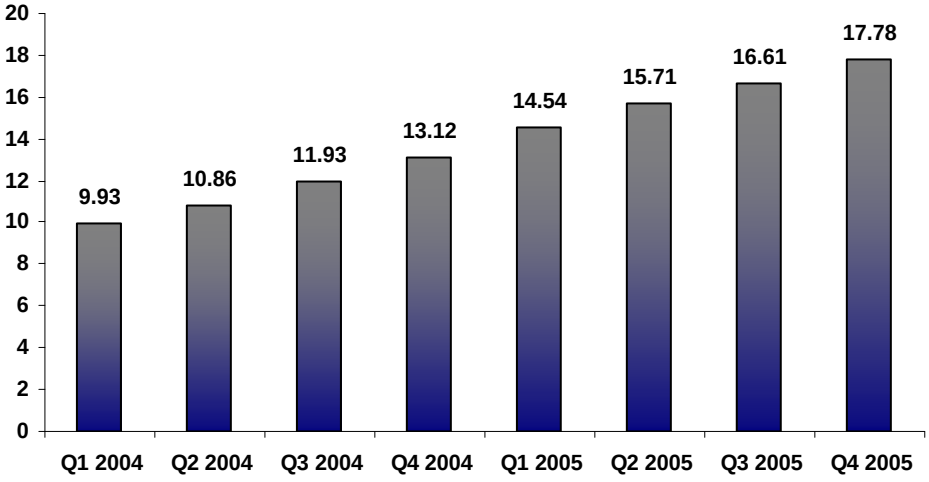
[21] Research Notes, 1Q2005, (http://www.leichtmanresearch.com), at 7.

[22] "Downgrading Cable & Satellite: Content Looks Cheaper on EPS," Morgan Stanley Equity Research, July 20, 2005, at 29.

[23] "Federal Communications Commission Releases Data on High-Speed Services for Internet Access," Press Release, FCC, July 7, 2005, at 2.

[24] NCTA estimate based on data from company reports, Leichtman Research Group, and Kagan Research. Cable modem data based on top 10 cable MSOs. DSL data based on four Regional Bell Operating Companies.

Chart 3
RBOC DSL Subscriber Growth: 2004-2005 (in millions)



Source: "Cable/Satellite: Trend Tracker 3Q05," Morgan Stanley Equity Research, October 21, 2005.

Cable operators have responded to this competitive marketplace by offering consumers a bundled package of services, which has enabled them to attract new customers and retain existing subscribers. Cable has been promoting increased access speeds, superior content, and other online enhancements.

When cable modem service was introduced in 1999, the majority of customers experienced downstream access speeds up to 1.5 Mbps. Since 2001, multiple system operators have regularly boosted those speeds at no additional cost. Most operators are now offering 4 to 6 Mbps, with additional pricing plans for speeds in excess of 6 Mbps. The cable industry is also focusing on developing the commercial market for high-speed Internet access. For example, Cablevision is marketing 50 Mbps service (expandable to 100 Mbps) for commercial customers in Oyster Bay, New York.[25]

---

[25] "Cablevision Revs Up 20-Meg Trial," Communications Engineering & Design, September 1, 2005, at 6.

Boosting speeds has not posed any technical problems for operators and the process is neither cost nor labor-intensive. No additional consumer equipment is necessary to move from 1.5 Mbps to 3, 9, or 15 Mbps. Usually, just a simple software download to existing modems can upgrade the speed capabilities. With other enhancements, high speed Internet access could increase to 160 Mbps downstream and 60 Mbps upstream.

In addition to speed, cable operators are offering a variety of features (at no additional fee) that increase value. These features include integrated security suites, with anti-virus, anti-spyware and firewall protection; pop-up blocking and spam filtering; video e-mail; and specialized content from partners such as Major League Baseball, NASCAR, Disney, and Movielink.

Though a smaller subset of the broadband access market, alternative technologies including Broadband over Power Line (BPL), fixed wireless and satellite will continue to make inroads as a viable alternative to DSL and cable modems. BPL service allows the delivery of IP-based broadband using the communications capabilities of the nation's power grid. According to the United Telecom Council, there are a number of trials underway nationwide, and a small number of commercial deployments have been launched. Adding new momentum, three technology behemoths – Google, IBM, and Motorola – recently announced major investments or trials involving BPL.[26]

---

[26] "Are Power Lines the Internet's Future?" The Austin American Statesman, July 17, 2005, at J1.

Cable's Digital Telephony is Primed for Explosive Growth Resulting in Better Service Bundles and Additional Benefits for Consumers

Nearly 4.5 million customers are taking telephone service from their local cable operator, both traditional circuit-switched telephone service and, increasingly, cable's new digital phone (VoIP) service. Some cable operators have offered traditional circuit-switched telephone service for years. More recently, many companies have launched IP-based services. Circuit-switched telephony subscribers may be transitioned to digital telephony in the years ahead. Meanwhile, the two largest providers of traditional phone service – Cox and Comcast – will continue to support their roughly three million circuit-switched telephone customers.

Kagan Research reported significant growth in cable's digital telephone subscribership for 2005. Between year-end 2004 and year-end 2005, the industry grew from 587,000 to 2.6 million customers, a growth rate of over 300 percent.[27] Kagan estimates the penetration rate for cable's VoIP services and, to a lesser extent circuit-switched telephony, will reach 18 percent of occupied U.S. households by the end of 2009, while 88 percent of homes passed by cable will be able to receive VoIP service the same year.[28] Morgan Stanley reported that 90 percent of telephone homes should be passed by digital telephone services by 2007.

Both Cablevision and Time Warner have established a strong beachhead in the digital phone marketplace, and Comcast is now in full deployment mode. Those operators, along with Charter, Insight, Bright House, and Bresnan are effectively

---

[27] "Cable Poised to Add Four Million IP Voice Subs in '06," Kagan Broadband Technology, February 17, 2006 at 1.

competing against a range of independent VoIP providers, including Vonage, Packet8, and Lingo, as well as the RBOCs. During the fourth quarter, Time Warner continued its strong growth in new customers, adding 246,000 VoIP users. Cablevision, Comcast, and Charter added 548,300 combined customers during the same quarter.

VoIP is having a positive impact on the other two service offerings in cable's "triple play" – video and high speed data. Operators offering VoIP are experiencing lower churn rates for basic cable and increased growth in high-speed Internet subscribers. Cablevision, Cox, and Time Warner all exhibited faster growth rates – almost 20 percent – in their high-speed access businesses than those operators not offering voice service.[29]

IV. CABLE CONTINUES TO INVEST IN ORIGINAL, COMPELLING PROGRAMMING TO WIN AND SUSTAIN CUSTOMERS IN A HIGHLY COMPETITIVE VIDEO MARKETPLACE

With regard to video programming networks – including children's programming and locally-originated programming – the cable industry continues to invest in general interest and niche programming to attract customers.

Programming Investment

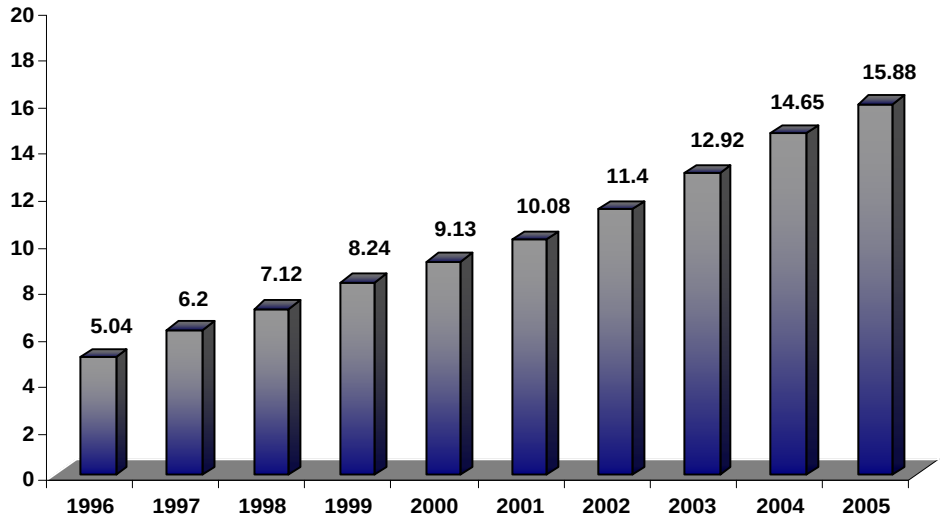
Cable's original, compelling, and high-quality content is the direct result of increased investments by both cable networks and operators. In 2005, cable networks

---

[28] "IP Voice Posed to Become Major Player," Kagan Broadband Technology, February 18, 2005, at 1.

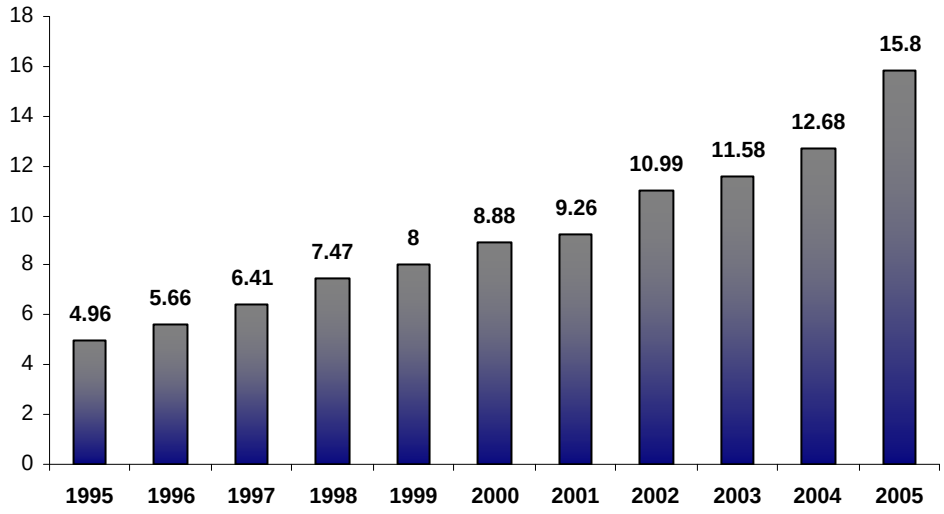
[29] Ibid.

Chart 4
Cable Networks' Programming Expenditures
1996-2005 (in billions of dollars)



Source: Kagan Research, LLC.

Chart 5
Cable Operators' Programming Expenditures:
1995-2005 (in billions)



Source: NCTA estimate based on Kagan Research, LLC. and U.S. Copyright Office

invested more than $15.88 billion in producing new programming (see Chart 4), while cable operators invested $15.8 billion to purchase quality programming for customers (see Chart 5). As noted above, with the deployment of services such as VOD and digital video recorders (DVRs), viewers can watch their favorite programming at their convenience.

Programming Quality

Cable is increasingly recognized as the premier outlet for high-quality, cutting-edge programming by television critics and viewers. For example, the 56th Annual Primetime Emmy Awards in September 2004 marked the first time that cable networks surpassed the broadcast networks in honors received, with 11 cable networks collectively garnering 50 awards compared to the broadcast networks' 37 awards.

- In January 2005, FX, Showtime and HBO won Golden Globe Awards.
- In April 2005, cable organizations won 12 George Foster Peabody Awards out of 32 awards granted.
- HBO and ESPN each won five Sports Emmy Awards in April 2005, followed by ESPN2, NFL Network and TNT tied with one award each.

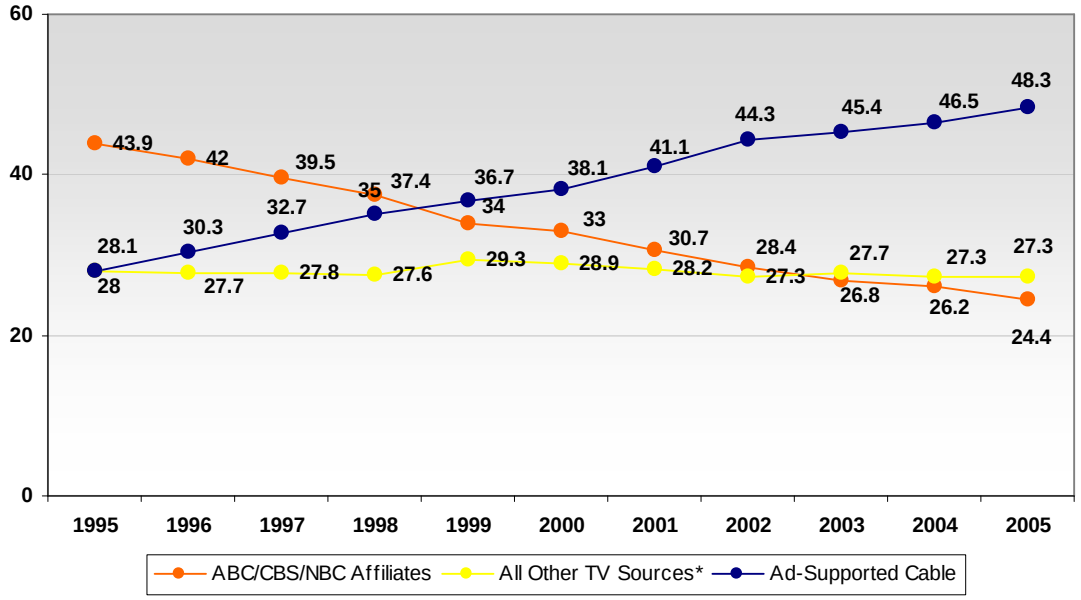
Programming Viewership

More viewers are tuning into cable's diverse offerings than ever before, even compared to the collective viewership of the major national commercial broadcast networks. For example, more than half of all primetime television viewers watched ad-supported cable networks during the official 2004/2005 TV season (September – May), the second consecutive time that cable has topped all national broadcast networks combined during an official season. Cable-plus households tuned in on a weekly basis to

more than 35 hours of ad-supported cable programming versus an average of 26 hours per week for all commercial broadcast programming combined.

An analysis of Nielsen data by the Cabletelevision Advertising Bureau (CAB) shows that for the official 2004/2005 TV season, ad-supported cable networks outpaced the "Big 3" (ABC, CBS, NBC) broadcast networks on a total day basis by 23.9 share points – with cable posting a 48.3 share to broadcast's 24.4 (see Chart 6).[30]

Chart 6
Viewing Shares Shift to Cable: 1995-2005 (Total Day Shares)



*All Other TV includes Independents, Pay Cable, FOX/WB/UPN/PAX Affiliates, PBS and all other cable.

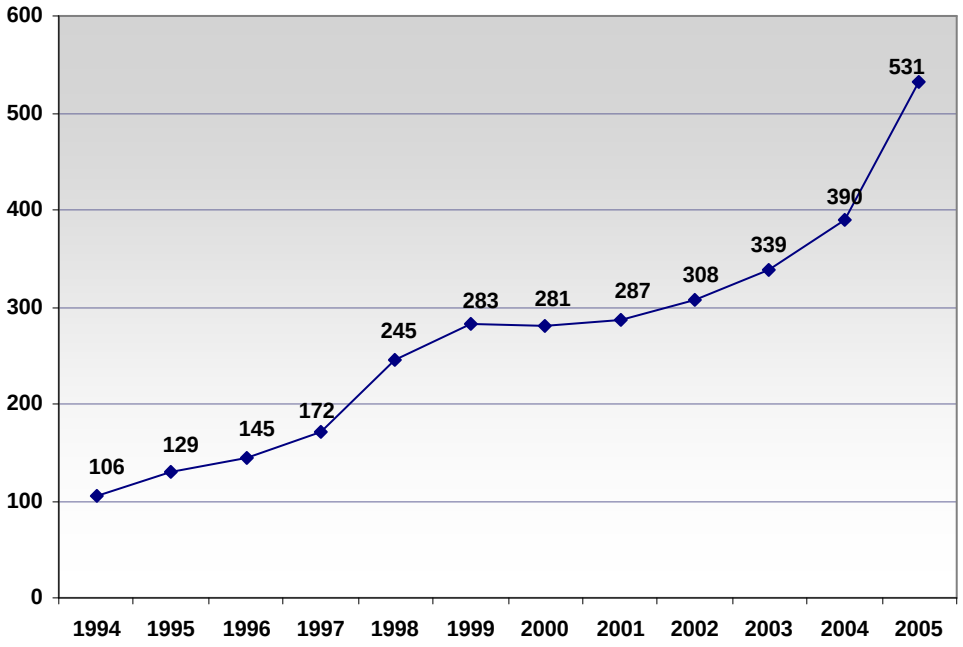
Source: Cabletelevision Advertising Bureau, 2006 Cable TV Facts

Programming Choice. Cable's investments in new channel capacity have resulted in a growing number of cable networks. As the FCC reported on February 10,

[30] Moreover, in cable-plus homes, ad-supported cable networks outpaced the Big 3 on a total day basis by 31 share points, with cable posting a 53.7 share to the broadcasters' 22.2.

2006, the number of national cable networks increased from 145 in 1996 to 531 by year-end 2005 – growth of 266 percent less than a decade (see Chart 7. Note however that vertical integration has fallen by half over the past decade – see Section VI.)

Chart 7
National Video Programming Services: 1994-2005



Source: 1994-2006 FCC Annual Reports on the Status of Video Competition

Children's Programming

Cable networks are continuing to provide many hours of quality programming suitable for children and the whole family. In addition to the positive viewing options that are provided, the industry has taken steps to help parents manage what their families watch. Free blocking technology is available, and programming networks have enhanced their on-screen ratings information.

Basic cable networks such as ABC Family, Animal Planet, Boomerang, Cartoon Network, Discovery Kids, Disney Channel, The Hallmark Channel, Nickelodeon, Nickelodeon GAS, Noggin/The N, and Toon Disney, as well as premium networks such as HBO Family, Showtime Family Zone, Starz Kids & Family, and Encore Wam continue to attract a growing audience share of children and families. Total day viewing by kids (ages 2-11) of advertising-supported cable networks increased from a 28.3 share in 1993/1994 to a 56.4 share during the 2004/05 official TV season.

Family Tiers

Beginning in December 2005, several leading cable operators (including Comcast, Time Warner Cable, Cox, and Insight) announced that they would voluntarily offer family programming tiers. The program networks included on these tiers vary by company, but all feature primarily G-rated content suitable for family viewing. The tiers, which can be purchased with the broadcast basic tier, became available in early 2006, and additional MSOs are deploying family tiers this spring.

V. CABLE FACES VIGOROUS COMPETITION IN THE VIDEO MARKET

In its 12th annual report to Congress on the state of competition in the video market, the Federal Communications Commission found that: [31]

[31] *Twelfth Annual Report* in the matter of "Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming," released March 3, 2006: FCC 06-11 at paragraph 5.

> Competition in the delivery of video programming services has provided consumers with increased choice, better picture quality, and greater technological innovation … We find that almost all consumers have the choice between over-the-air broadcast television, a cable service, and at least two DBS providers.

Today, consumers can choose from a variety of multichannel video providers, including Direct Broadcast Satellite (DBS), alternative broadband providers like RCN/Starpower, local telephone companies, and utilities. **As a result of this competition, 29.7 million consumers (more than one out of four video subscribers) now obtain multichannel video programming from some company other than their local cable operator (see Chart 8).**

Chart 8
Subscribers to Multichannel Video Program Distributors (MVPDs), November 30, 2005

	Subscribers (in Millions)	Percent of Total MVPD Subscribers
DBS (high power satellite)	27.20	28.97%
C-Band (low power satellite)	0.20	0.21%
MMDS (microwave)	0.10	0.11%
SMATV (private apt/condo)	1.00	1.06%
Broadband Competitors	1.20	1.28%
Non Cable MVPD	29.70	31.63%
Cable	64.20	68.30%
Total MVPD	93.90	100.00%

Sources: NCTA estimates based on data from Kagan Research LLC, *Kagan Media Money*, January 4, 2006 at 7; and Nielsen Media Research.

Direct Broadcast Satellite

DBS companies currently have more than 27 million customers compared with none 12 years ago. The two nationwide DBS providers now serve 29 percent of all multichannel video households and their penetration is 25 percent or greater in at least 25 states. DirecTV (15.13 million customers) and EchoStar (12.04 million subscribers) are now larger than all of the cable companies in the United States except Comcast. Cable made significant gains in digital telephone and high-speed Internet customers in 2005, but its share of multichannel video customers has fallen well below 70 percent.

DBS operators continue to experience strong subscriber growth in virtually every market where they offer local channel service.[32] Indeed, DirecTV and EchoStar report that their total number of subscribers increased from 24.85 million to 27.17 million between December 2004 and December 2005, an increase of 9 percent.[33] According to Strategy Analytics, "DBS has robbed cable of the slow-but-steady growth it enjoyed up until the late 1990s, but its broader impact has been to expand the total base of multichannel TV homes."[34]

The Government Accountability Office (GAO) stated in 2005 that "DBS penetration rates have been and remain highest in rural areas, but since 2001, DBS penetration has grown most rapidly in urban and suburban areas, where the penetration rates were originally low… In short, over the 2001 to 2004 time frame, the DBS

---

[32] "Cable's Unique Market Opportunity," Investment Dealers Digest, February 21, 2005.

[33] NCTA estimates based on data from Kagan Research LLC.

[34] "US Multichannel TV Update: Satellite Gains, But Does Cable Lose?" Strategy Analytics, Inc., April 1, 2005.

penetration rate grew about 50 percent and 32 percent in urban and suburban areas, respectively, compared with a growth rate of 15 percent in rural areas."[35] As Chart 9 shows, DTH penetration of television households, as of November 2005, exceeded 30 percent in 9 states, 20 percent in 36 states, and 15 percent in 46 states.

Chart 9
States with Direct-To-Home (DTH) Dish Penetration of More than Fifteen Percent, November 2005

State	Penetration Rate	State	Penetration Rate
Vermont	42.73%	South Carolina	25.38%
Montana	38.03%	Oregon	24.77%
Utah	37.73%	Wisconsin	24.61%
Idaho	36.80%	Arizona	24.42%
Wyoming	35.56%	Illinois	23.04%
Mississippi	34.01%	North Dakota	23.61%
Missouri	33.94%	South Dakota	23.51%
Arkansas	32.50%	Maine	23.07%
Georgia	30.69%	Michigan	23.00%
Colorado	29.57%	Nebraska	22.81%
New Mexico	29.55%	Washington	22.28%
Oklahoma	29.44%	Kansas	22.15%
Alabama	27.93%	Florida	22.05%
Indiana	27.84%	Alaska	19.29%
Iowa	27.31%	Delaware	19.26%
California	26.94%	Louisiana	18.61%
Virginia	26.71%	Maryland	18.58%
Tennessee	26.62%	Ohio	18.54%
Kentucky	26.45%	Nevada	17.86%
West Virginia	26.42%	New Hampshire	17.30%
Texas	26.33%	New York	16.69%
North Carolina	26.05%	Pennsylvania	16.16%
Minnesota	25.62%	New Jersey	16.00%

Source: The Bridge, November 1, 2005 www.mbc-thebridge.com ; TV Household data from A.C. Nielsen.

[35] Statement by Mark L. Goldstein, Director, Physical Infrastructure Issues, Government Accountability Office, Congressional Quarterly, GAO Report, April 2005 at 3.

Partly in response to the competition posed by DBS, cable invested more than $100 billion in new equipment and facilities between 1996 and 2006. These capital expenditures allowed cable to offer new digital services and digital tiers – including HDTV, interactive program guides, video-on-demand, personal video recorders, and CD quality, commercial-free music channels.

Cable's upgrades have provoked a competitive response from DBS, which is good for consumers. For example, DirecTV's CEO Chase Carey acknowledges that many cable operators have improved their video service in recent years, "which is why we have to continue to improve."[36] In an effort to keep pace with cable's video-on-demand movie offerings, DirecTV and EchoStar have stepped up marketing and promotion of their pay-per-view movie services.[37] In addition to EchoStar's stand-alone pay-per-view channels, the company's Dish on Demand service launched January 2005 with 30 titles downloaded to subscribers using the company's DISHPlayer Digital Video Recorder (DVR). DirecTV has promoted its pay-per-view business with discounts on recent Hollywood releases. EchoStar is rolling out the first portable DVR device, called the Pocket-Dish, in an effort "to get a leg up in its battle with cable and satellite TV rivals."[38] It has also teamed up with Frontier, a telecommunications provider, to offer a bundled package of satellite television, Internet and telephone service in 24 states.[39] This is in

---

[36] "Further to Fly; DirecTV Continues to Grab Market Share Despite Stepped Up Competition," Multichannel News, May 23, 2005.

[37] "DBS Tries PPV Discounts, Downloads," Multichannel News, May 23, 2005.

[38] "EchoStar to Roll Out Portable DVR Device," Investor's Business Daily, May 26, 2005.

[39] "Frontier, EchoStar Form Strategic Alliance," Satellite News, April 5, 2005.

addition to the joint marketing arrangements DirecTV and EchoStar have with Bell companies.

Broadband Service Providers and Municipal Overbuilders

Although DirecTV and EchoStar are cable's largest MVPD competitors at this time, cable operators continue to face competition from other facilities-based providers in major U.S. markets. Broadband service providers (BSPs) – which include independent, municipal, and CLEC overbuilders – are offering bundles of video, voice, and data services over a single network.[40] RCN, the largest BSP, has 371,000 cable subscribers and ranks as the twelfth largest MSO. It operates in major metropolitan areas, including San Francisco, Chicago, Boston, New York, and Washington, D.C. RCN's video, telephone, and high speed data service passes nearly 1.5 million homes.[41]

Wide Open West (WOW), the fourteenth largest MSO, serves an estimated 291,200 subscribers, and passes an estimated 1.4 million homes. Knology Holdings, the twenty-first largest MSO, reports 175,300 cable subscribers, and passes 783,000 subscribers. Grande Communications, the thirtieth largest MSO, provides cable service to 87,800 subscribers and passes more than 328,000 homes.[42]

Municipally-owned cable systems, in selected areas, also continue to compete with cable systems and other MVPDs. According to a survey by the American Public Power Association (APPA) of its members, conducted at the end of 2004, 102

---

[40] 11th Annual Report at 2801, n. 362.

[41] "Cable TV Investor: Deals and Finance," Kagan Research, Inc., November 30, 2005, at 13.

[42] Ibid.

municipally-owned utilities offered cable TV service.[43] The APPA survey also reported that 81 municipally-owned utilities were offering cable modem or DSL service, and 52 municipal utilities offered telephone service.[44]

Mobile Video

Digital video recorders and video-on-demand services have fueled consumer demand for watching TV shows *whenever* people like. The next goal for video providers is to offer consumers the ability to watch TV *wherever* they like. The market for video over cell phones is growing quickly and is being developed by major players – including service providers like Verizon Wireless, Sprint, and Cingular as well as major technology companies like Qualcomm, Microsoft, and Nokia.

For example, Verizon Wireless rolled out *V Cast*, a service that offers video programming to cellular telephone users, in February 2005.[45] *V Cast* currently provides news updates, sports highlights, celebrity news, stock quotes and market information, weather, and games for $15 per month. Its television-like video, at high bit rates, allows customers to download music videos and other high quality content. It is also reportedly working on its own original, reality programming. Verizon asserts that its *V Cast* service is "available in 118 major metropolitan areas covering more than 148 million people."[46]

---

43 "Powering the 21st Century Through Community Broadband Services," American Public Power Association, Sept. 2005.

44 Ibid.

45 "On-Demand In The Palm Of Your Hand: Verizon Wireless Launches 'VCAST' – Nation's First And Only Consumer 3G Multimedia Service," Verizon press release, January 7, 2005.

46 http://getitnow.VZshop.com/index.aspx?Id=Vcast_coverage.

Industry experts estimate that Verizon Wireless has signed up 500,000 customers since the service was launched early this year.[47]

Similarly, Sprint Corporation began broadcasting live video over its wireless phones in August 2004.[48] Sprint PCS customers can now see news, video clips, and other content real time over their cell phone. Sprint/Nextel has also announced that it will "offer 2-3 Mbps mobile broadband service to the top 100 U.S. markets at $20-$40 month in 2008."[49] Qualcomm recently introduced its TV-cell phone service, MediaFlo.[50] In addition, MobiTV, a video service made available by Sprint and Cingular in the United States, now has 500,000 subscribers and an Emmy Award from the Academy of Television Arts and Sciences for its streaming TV broadcast service.[51]

The drive to deliver TV content to portable devices is picking up steam, as some providers prepare to launch Hollywood films and short format cinema in the near term.[52] HBO and Cingular Wireless recently entered a pact for wireless content distribution.[53] In addition to making the network's existing programming available, HBO may create new entertainment channels for the service.

---

47 "Narrowcasting Video: Can Mobile Mimic Cable's Model?" *Wireless Week*, Oct. 25, 2005, http://www.wirelessweek.com/article-mobilecontent/CA6277594.html.

48 "Sprint Will Start TV Service for Wireless," Kansas City Business Journal, August 13, 2004.

49 "Sprint Plans $20-$40, 2-3 Mbps Mobile Service in Top 100 Markets Starting 2008," Communications Daily, Warren Communications, January 20, 2006, p. 4.

50 "Qualcomm Goes with the MediaFLO; Armed with New Chip, company to join the TV-cell phone scramble," Broadcasting & Cable, May 16, 2005.

51 "MobiTV, Cingular to Put Radio on Cell," *Inside Bay Area*, Nov. 15, 2005, http://insidebayarea.com/search/ci_3217487.

52 "The Movie Theater in Your Pocket; Direct from Cellywood: Cell-phone cinema isn't exactly like the bit screen kind, but its potential sure is attracting attention," Business Week Online, June 22, 2005.

53 "HBO Unplugged," MSNBC.com, August 9, 2005.

Meanwhile, Sony's new portable PlayStation game device, known as PSP, is another mobile video play. It is capable of downloading TV shows and video information. It has been called "a plasma screen in your pocket."[54]

Although still a nascent business, some financial analysts on Wall Street are predicting the following about wireless video services:[55]

> The U.S. mobile video user base may balloon to more than 20 million by the end of 2007, up from less than 1 million today, says Albert Lin, an analyst at American Technology Research (ATR). Assuming each subscriber pays $5 a month for such services, that would translate to a $1.2 billion market. Worldwide, more than 250 million people are expected to be watching mobile video by 2010, generating some $27 billion in sales, vs. with $200 million today, according to market consultant ABI Research.

Internet Video

The video landscape is marked not only by intense rivalry among cable, satellite and telephone providers but also Internet-based video delivery systems. Consumers now have new ways to access video content – from digital cell phones and other portable devices to interactive websites to enhanced in-home consumer electronics and computer equipment with high definition DVD or streaming video-capability. Not surprisingly, Internet companies such as Yahoo! and Google have declared themselves to be media companies offering multiple services to compete with cable.

As one observer put it, the ethos of New TV can be captured in a single sweeping mantra: *anything you want to see, any time, on any device*."[56] Another stated it this way:

---

[54] "The Handy Future of TV; With Internet Uploads to Portable Players, the Airwaves are Wide Open," Kansas City Star, April 20, 2005.

[55] Olga Kharif, "The Coming Video Deluge," BusinessWeek Online, October 11, 2005.

> It's the key battleground in what promises to be one of the most bruising – and important- global corporate fights in the next couple of years. Telephone giants, cable titans, computer companies and consumer electronics makers are all vying to provide the next generation of high-tech entertainment – a single network or gadget that lets you view photos, listen to music, record DVDs and tune into whatever TV programs you want to watch, whenever you feel like watching them.[57]

There is no denying that this proliferation of new delivery modes – the combination of digital communications and computers with entertainment and immediate access to worldwide information – is making all industry players compete more aggressively to stay in the game. As one media analyst recently said, "from an investment standpoint, I don't think we've ever before seen such a competitive landscape."[58]

The FCC has recognized that video provided over the Internet has grown and promises to become an increasingly strong participant in the video programming marketplace.[59] As broadband Internet offers broadcast-quality video, consumers are increasingly turning to Internet-based means of accessing video content, including downloading movies and other high value video content traditionally available only through broadcast, cable, satellite or home video outlets. Libraries of video content, containing *thousands* of hours of video programming, are becoming available to consumers on a personalized, customized basis.

Internet companies are providing their own unique content or partnering with other established content providers and video distributors. New entrants, like Akimbo

---

56 "Television Reloaded," Newsweek, May 30, 2005.

57 "Who's going to win the living room wars?" The Wall Street Journal, April 25, 2005.

58 "Panelists See Communications Services Converging," Communications Daily, June 2, 2005, quoting Richard Greenfield of Fulcrum Global Partners.

Systems, offer a mix of established TV programming and unique content via the Web. Akimbo charges $10 a month and offers about 1600 programs, some for an extra fee. The company's chief executive predicts that Akimbo "will do what eBay has done for retailing."[60] Google, Yahoo! and Microsoft are developing video search engines to harness video content via their portal service.[61] Over the past year, Yahoo! predicted a one billion subscriber base for its multiple media services by decade's end.[62] BitTorrent, an Internet file-sharing method enables video enthusiasts to trade video files online. iFilm and other websites offer video clips to millions of customers. Wi-FiTV, a broadband Web site that features more than 200 TV channels from around the world, recently began service.

Program networks are enhancing their Internet presence to gain viewers and advertising dollars. These web "channels" contain specially made programming, short videos targeting niche interests, and repackaged TV content.[63] MTV Overdrive, a mix of news, live performances and on-demand music videos launched in April 2005. Networks such as Home & Garden Television, Food Network, CNN, Fox News Channel, and MSNBC are offering more video content on their sites. According to one analyst, Internet advertising is headed toward a 25 percent increase over the last year, to upwards of $8.8 billion in 2005.[64]

---

[59] 12th Annual Report at paragraphs 135-139.

[60] "Merger of TV and Web May Hit Cable Industry Before It's Prepared," The Wall Street Journal, April 18, 2005.

[61] "Next Via the Internet: Tailored TV," Associated Press Online, May 16, 2005.

[62] "Mermigas on Media," The Hollywood Reporter, April 5, 2005.

[63] See e.g., "CNN.com plans Internet live news service," Financial Times, May 16, 2005.

[64] WSJ On-Line, May 16, 2005.

AOL saw a jump of 120 percent in its on-demand video streaming in 2004 and drew in five million viewers for its exclusive live coverage of the July 2, 2005, Live 8 concert.[65] ManiaTV.com, the interactive television website, had 1.6 million users in July alone.

As Internet companies and website operators grow their on-line video businesses, consumer electronics manufacturers are developing ways to exploit the World Wide Web via equipment. Toshiba and Matsushita, for example, offer digital TVs that allow users to download and store online video, along with DVD recording capability.[66] PC makers are developing new "media center" PCs that can play and record movies, television, and music accessed on-line. As described by PC magazine online, "there is going to be a big battle for dominance in people's living rooms. What we've seen is a mini-explosion of set top boxes for Internet television."[67] This flurry of announcements and deals in recent months shows that all players in the video marketplace are positioning themselves to compete in the IPTV arena.

Broadcasting

Broadcasters are still strong competitors to cable and other multichannel providers. The competition for viewers is manifested in the battle for advertising dollars. After a 10-year decline in viewers aged 18 to 49, the broadcast networks posted an

---

65 "Extreme TV; ManiaTV.com offers college kids a broadband barrage of chat, sport, music and film. Is this the perfect media for the digital generation?" MSNBC.com, August 24, 2005.

66 "Format Wars," Financial Times, Comment & Analysis, March 3, 2005.

67 "The Web: Internet TV Ready for Prime Time," Gene Koporwski, UPI, March 9, 2005.

increase in this key demographic for the 2004-2005 television season. It all came down to the big four broadcast networks' crop of breakout hit shows. Some network shows turned in performances "akin to the days before cable became a serious competitor."[68] This has boosted advertising commitments for the coming year on all broadcast networks.

While the broadcast share of television viewing has declined in recent years as television viewers have increasingly opted for the multitude of choices available on cable, broadcast television remains a potent force. Broadcasting's share of the viewing day continues to exceed 40 percent.[69] Moreover, approximately 15 percent of television households do not subscribe to any multichannel service. These television households continue to find broadcast television alone or in combination with non-MVPD video sources (such as DVDs) to be their preferred means of receiving video programming – and a significant percentage of MVPD households include television sets that are not connected to multichannel service.

Home Video

DVDs, video cassettes, and laser discs continue to provide competitive alternatives to MVPD viewing options. There are approximately 47,000 DVD titles available for purchase or rental today, compared to 30,000 a year ago.[70] Consumers spent $24.5 billion renting or purchasing DVDs and VHS tapes last year, while

---

68 "Desperate No More? Networks See a Rebound in Viewers," The Wall Street Journal, May 26, 2005.

69 Cabletelevision Advertising Bureau, 2005 Cable TV Facts, www.onetvworld.org/?modula-displaystory+story_id=1257xformat=html.

70 The Digital Entertainment Group, "DVD Household Penetration reaches 75 Million," (press release), July 26, 2005.

generating $9.4 billion in domestic box office revenue.[71] In addition to theatrical releases, many highly popular previously broadcast television series are now available in DVD format, frequently accompanied by major advertising campaigns. Popular cable network shows are also available on DVD.

The growth in sales of DVD-formatted programming has been facilitated by gains in the sale of DVD hardware. U.S. consumers purchased 37 million DVD players in 2004, an eight percent increase over the previous year. During the first half of 2005, nearly 14 million DVD players were sold to consumers, more than a six percent increase over the same period last year. Household penetration is expected to reach 80 percent by year-end 2005, with over 45 percent of DVD owners having more than one player. When accounting for computers with DVD-ROM drives and DVD-enabled video game consoles, an estimated 79 million households currently have the capability to play DVD, approaching three-fourths of all U.S. TV households.[72]

With regard to DVD software, on-line provider Netflix recently teamed with retail giant Wal-Mart to offer their customers access to more than 40,000 titles of video programming.[73] Overall, consumers spent $15.5 billion in 2004 on DVD sales, an increase of 33 percent over 2003, while revenues from DVD rentals increased 26 percent over 2003, as consumers spent more than $5.7 billion.[74]

---

[71] The Digital Entertainment Group, "Industry Boosted by $21.2 Billion in Annual DVD Sales and Rentals," (press release), January 6, 2005; "Movie Income Rises in 2004, but Ticket Numbers Sag Slightly," The Associated Press, January 5, 2005 at http://www.post-gazeette.com/pg05005/437134.stm.

[72] Ibid.

[73] "Walmart.com and Netflix Announce New Promotional Agreement," Press Release, May 19, 2005.

[74] Ibid.

VI. VERTICAL INTEGRATION

Vertical integration in the cable industry has declined dramatically over the past decade. For example, in 1992, half of all cable program networks were vertically integrated with cable system operators.[75] Since 1992 the percentage of programming networks in which cable operators collectively have any ownership interest has dropped to 21.8 percent. No single cable operator has a financial interest in more than seven percent of the more than 475 national program networks (counting each multiplexed pay-per-view network only once) identified in the FCC's Twelfth Annual report on competition in the video marketplace.[76] Consequently, the vast majority of channels carried by any one cable operator – including Comcast, Time Warner, and every other member of NCTA – are not affiliated with that operator.

Even with over 530 national program networks, including several 24-hour all-news channels, the video marketplace is open to new independent networks. 90 cable channels have launched since January 2000 which are not affiliated with a cable operator, according to the FCC. This belies the complaints made by some critics that cable operators are refusing to carry independent programmers.

---

[75] Even then, most of each of those networks' customers were cable operators that did not have an interest in that particular network and would have no reason to carry it instead of an independent programmer.

[76] Id. at paragraph 157.

VII. TELEPHONE COMPANY ENTRY INTO VIDEO

Now that DBS has transformed the video marketplace so that virtually all television households have choice, it is easy to forget that only a decade ago, it was the large local telephone companies that were promising to provide a competitive alternative to cable – just as cable operators were promising to provide a new source of telephone service. Congress took those promises seriously and cleared a path for both the cable and telephone industries to enter each other's business. The 1996 Telecommunications Act **immediately** removed the statutory barrier for telco entry into video.[77] It also allowed cable to provide local exchange service,[78] assuming that cable operators met the regulations for providing competitive local exchange service.

The cable industry delivered on its promise to provide facilities-based competition to incumbent voice providers. By contrast, the telephone companies did not fulfill their promises to enter the video marketplace. Instead, they spent ten years focused on the long distance market and thwarting the efforts of their competitors – especially the CLECS – to provide local telephone service.

The telephone companies are now reviving plans to provide multichannel video programming services.[79] For example, AT&T/SBC is spending $4 billion over the next three years to install fiber optic cable to serve up to 18 million homes and plans to deliver

---

[77] See generally Section 302 of the Telecommunications Act establishing new sections 651-653 of the Communications Act, 47 U.S.C. §§ 571-573.

[78] See Section 303 of the Telecommunications Act, establishing Section 621(b)(3) of the Act, 48 U.S.C. § 541(b)(3), to facilitate cable provisions of telecommunications services.

[79] "SBC Communications to Detail Plans for New IP-Based Advanced Television, Data and Voice Network," SBC Press Release, Nov. 11, 2004; "Verizon's New High-Fiber

television services using Internet protocol (IP) technology.[80] Verizon is spending $6 billion over five years to lay fiber directly to 16 million households in its service areas.[81]

VIII. CONCLUSION

As Congress drafts changes to the Telecommunications Act of 1996, we urge you to treat like services alike, preferably in a deregulatory environment. We will do the rest by raising private risk capital, investing in new technology, offering better customer service, creating innovative programming, and competing with other multichannel video providers in order to provide consumers with the best voice, video, and data services possible.

'Diet' for New Jersey, Blazing Fast Data, Crystal Clear Voice, Video Capability," Verizon Press Release, Sept. 15, 2005.

80 "SBC and Comcast Want it All," San Francisco Chronicle, July 31, 2005.

81 "Verizon, DirecTV Get Closer," Boston Globe, February 22, 2005.