The Free State Foundation

A Free Market Think Tank For Maryland…Because Ideas Matter

Perspectives from FSF Scholars
October 2006
Vol. 1, No. 7

Don't Inflict Analog Era Equipment Rules On The Digital Age

by
Randolph J. May*

I. Introduction

In the Telecommunications Act of 1996, Congress decided cable companies and their competitors should allow consumer electronics manufacturers to make "plug and play" set-top equipment that would work with any cable or direct broadcast satellite (DBS) service so consumers could buy such equipment rather than leasing it from, in the congressional lingo, their multichannel video program distributor (MVPD). To accomplish this objective, in new Section 629 of the Communications Act Congress authorized the Federal Communications Commission to adopt regulations to "assure the commercial availability, to consumers of multichannel video programming and other services offered over multichannel video systems, of converter boxes, interactive communications equipment, and other equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems, from manufacturers, retailers, and other vendors not affiliated with any multichannel video programming distributor."[1]

The statute's obligations are applicable to all MVPDs. Congress explicitly provided that any FCC regulations shall not prohibit any MVPD from offering its own equipment as long as the "charges to consumers for such devices and equipment are separately stated and not subsidized by charges for any such

* Randolph J. May is President of The Free State Foundation, a non-profit, independent free market-oriented think tank based in Potomac, Maryland. This is a significantly expanded version of a commentary that appeared on CNET News on September 21, 2006. That commentary may be found at: http://news.com.com/Heading+off+a+potential+FCC+debacle/2010-1047_3-6117902.html

[1] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, Section 629(a), codified at 47 U.S.C. §549(a).

service."[2] And it also made clear that the Commission could not prescribe any regulations "which would jeopardize security of multichannel video programming and other services offered over multichannel video programming systems, or impede the legal rights of a provider of such services to prevent theft of service."[3]

While Congress wanted to spur the development of an independent retail market for equipment used in connection with multichannel services, it also was cognizant, even in 1996, that it was legislating in a technologically dynamic area in which rapid marketplace changes were likely to occur. So it included in Section 629 two other significant provisions. First, Congress mandated that the FCC must waive an equipment regulation "upon an appropriate showing by a provider of multichannel video programming and other services …that such waiver is necessary to assist in the development or introduction of a new or improved multichannel video programming or other service offered over multichannel video programming systems, technology, or products."[4] Second, it provided that any regulations issued under Section 629 shall cease to apply when the FCC determines that the MVPD programming and equipment markets are fully competitive, and the elimination of the regulations would promote competition and the public interest.[5] Although not without precedent, the inclusion of either an explicit waiver or a "sunset" provision in statutes delegating regulatory authority to agencies is the exception rather than the rule. The fact that Congress included both modes of regulatory relief in the navigation device statute reveals a legislative awareness of the dynamic situation the agency likely would confront regarding MVPD programming and services.

Pursuant to regulations issued under the authority of Section 629, the FCC now has a rule in place which will require that by July 2007 all MVPDs, except direct broadcast satellite operators, stop selling or leasing to subscribers any new device used to access multichannel programming that integrates both security and non-security functions.[6] The National Cable & Telecommunications Association,[7] individual cable operators,[8] and Verizon[9] all have filed petitions asking the Commission to extend the July 2007 implementation date for the so-called "integration ban."

Congress's goal may have made theoretical sense in 1996 in the staid, still fairly monopolistic world that characterized analog communications. However, the rapid technological and marketplace changes since then spurred by the digital

---

[2] 47 U.S.C. §549(a).
[3] 47 U.S.C. §549(b).
[4] 47 U.S.C. §549(c). The Commission is instructed to grant such waiver request within 90 days of the filing of the waiver petition upon an appropriate showing.
[5] 47 U.S.C. §549(d).
[6] 47 C.F.R. §76.1204(a)(1).
[7] National Cable & Telecommunications Request for Waiver, filed August 16, 2006 (hereinafter "NCTA Waiver Request").
[8] See, e.g., Comcast Request for Waiver, CSR-7012-Z, CS Docket 97-80, filed April 17, 2006.
[9] Verizon's Petition for Waiver of the Set-Top Box Integration Ban, 47 C.F.R. §76.1204(a)(1), filed July 10, 2006 (hereinafter "Verizon Waiver Request").

revolution require that the FCC revise or rescind its equipment regulations. We now undoubtedly have an environment in which what we sometimes still call "cable," "telephone," and "satellite" companies, using digital networks, compete against each other to provide multichannel video services, along with packages of other services, such as Internet access and voice. The old labels variously applied to these service providers are now obsolete. More properly, these competitors should be called broadband service providers.[10]

Just as the old service labels are now obsolete, so too is the integration ban an anachronism is today's competitive digital broadband marketplace, and one that, if implemented, will impose real costs. Unless the ban's implementation date is waived or rescinded entirely, American consumers unnecessarily will suffer very tangible harms without realizing countervailing benefits. This is a case in which the FCC should not hesitate to exercise its discretion to grant regulatory relief in the interests of consumer welfare.

II. The Regulatory History: "A Particularly Perilous Time For The Adoption of Regulations"

Set-top equipment provided by MVPDs historically has integrated two functions: security, which ensures the subscriber is only able to access services to which he has subscribed, and navigation, which allows the subscriber to tune channels and perform other non-security functions such as accessing channel program guides. In 1998, the FCC directed the cable industry to develop a physical device —now called a CableCARD—containing the security functions that could be inserted in the equipment of independent manufacturers so that their boxes could be used with cable systems around the country.[11] The Commission thought this separate security device would allow MVPDs to retain control over the security function while enabling independent entities separately to market navigation devices. Pursuant to the Commission's directive, according to NCTA cable operators now support active use by subscribers of more than 524 models of digital cable ready competitive navigation devices certified or verified for use with CableCARDS available from 26 different manufacturers.[12] While the vast majority of cable subscribers continue to use equipment leased from their

---

[10] I am not suggesting that each of the various technological platforms presently enable each broadband provider to offer the very same suite of services in a way that makes them perfectly substitutable. But such perfect substitutability is not necessary to have an effectively competitive marketplace, especially in an area as technologically dynamic as communications and information services. Indeed, although I mentioned "cable," "telephone," and "satellite" companies above, wireless operators using 3G, WI-MAX and other broadband technologies increasingly compete in the video marketplace, and power companies may soon enter as well. For a discussion of the increasingly competitive broadband services marketplace, see Applications for Consent to Assignment and/or Transfer of Control of Licenses, FCC 06-105, MB Docket No. 05-192, released July 21, 2006 (hereinafter "*Adelphia/Comcast/Time Warner Order*").
[11] Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices, 13 FCC Rcd. 14775, 14793-94 (1998)(hereinafter "First Report").
[12] NCTA CableCARD Status Report, CS Docket 97-80, September 25, 2006.

cable company, approximately 200,000 subscribers access programming using equipment enabled with CableCARDS.

In 1998, however, the FCC did not stop with the requirement that a separate security device be developed and made available by cable operators. Although not required by Congress to do so, the agency went further and imposed the integration ban, with an effective date of January 2005, requiring that by that date all MVPDs stop selling or leasing new devices that integrate both security and non-security functions. This rule meant that all equipment used to access cable services would rely on common technology—like the CableCARD. However, as it did with the separate security requirement, the agency exempted from this "integration ban" MVPDs that support the use of equipment available in retail outlets unaffiliated with the MVPD and that operate throughout the United States.[13] DBS providers were the only MVPDs which qualified for the exemption because the FCC found that, unlike cable subscribers, DBS subscribers could buy a device and use it anywhere in the country even though a DirecTV receiver could not be used with an EchoStar system and *vice versa*.[14] Thus, cable operators were covered by the integration ban while their principal competitors were not.

Even in 1998, the FCC recognized it was "a particularly perilous time for the adoption of regulations...because regulations have the potential to stifle growth, innovation, and technical developments at a time when consumer demands, business plans, and technologies remain unknown, unformed or incomplete."[15] The Commission was correct, of course. The pace of technological and marketplace developments has only accelerated since 1998. Confronted with these changes, in March 2005 the FCC extended the "integration ban" implementation date, primarily because it determined that "development of set-top boxes and other devices using downloadable security is likely to facilitate the development of a competitive navigation market, aid in the interoperability of a variety of digital devices, and thereby further the [Digital Television] transition."[16] Delay of the integration ban could facilitate these objectives "without the potentially costly physical separation of the conditional access element."[17]

According to the Commission, "a software downloadable security system would allow cable operators and consumer electronics manufacturers to rely on an identical security function, but would not require the potential costly complete separation of the physical security element..."[18] If the ban were implemented, "this would, as a practical matter, impede the development of a less expensive

---

[13] See 47 C.F.R. §1204(a)(2).
[14] 13 FCC Rcd at para. 66.
[15] First Report, at para. 15.
[16] Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices, 20 FCC Rcd. 6794, 6794 (2005) (hereinafter "Second Report").
[17] Id., at 6795.
[18] Id., at 6810.

and more flexible system for both protecting system security and creating a consumer product interface."[19] In light of these considerations, the agency extended the integration ban implementation date to July 1, 2007.

III. A Regulatory Relief Imperative: "Avoiding The Need To Develop A Costly, Complex, Inefficient, And Ultimately Superfluous Physical Separation Solution"

With the July 2007 date fast approaching, the FCC again is considering requests by cable operators to extend the integration ban implementation date. But since the last extension, the marketplace landscape has changed even more dramatically. Verizon, AT&T and other telephone companies are rushing into the multichannel video business. So Verizon too recently asked the FCC to extend the integration ban's implementation date, urging, with downloadable security on the horizon, an extension "would benefit consumers by avoiding the need to develop a costly, complex, inefficient, and ultimately superfluous physical separation solution that will only delay the provision of important new services."[20] Verizon contends that implementing the ban "will ultimately hurt consumers in the form of more expensive set-top boxes."[21] Because downloadable security is now maturing, absent having to divert substantial resources to development of physically separate devices, Verizon asserts it bring a set-top box solution to the consumer electronics market that also enables new video services, such as IP-enabled video features.[22]

Since their exemption from the integration ban and even since the Commission last extended the ban's implementation date, the two DBS operators have steadily done an about-face, now supporting equipment containing mainly proprietary features. While this move towards support for proprietary features integrating services and equipment is not unexpected in a market becoming more intensely competitive, the differential regulatory treatment among MVPD competitors necessarily creates inequities disfavoring those competitors still subject to the integration ban.

Also since the Commission last considered the implementation date, Congress finally has set a firm February 2009 date for transition to all-digital broadcast television transmission. As explained below, the now certain impending cut-off date for analog broadcasting strengthens the case for regulatory relief.

All of the changes in the technological and marketplace landscape make this a case that cries out for regulatory relief. Downloadable security should be

---

[19] Id.
[20] Verizon Waiver Request, at 4.
[21] Id.
[22] Id.

deliverable within the next few years, but not by July 2007.[23] Implementing the integration ban in the meantime would be very costly to consumers with no real benefits. Both the cable industry and Verizon estimate that the re-engineering required to enable their leased equipment to work with separate security devices will increase the cost for each box by $72-$95, adding another $2 to $3 to monthly lease charges.[24] According to NCTA, all together the direct cost to the cable industry to implement the CableCard separate security device would exceed $500 million per year.[25] Moreover, requiring cable companies and Verizon to implement physical separation in the coming months would divert technical resources away from the task of implementing a downloadable security solution as quickly as possible.

The fact that Congress has now settled on a firm DTV transition date supports an extension as well. Congress has authorized a $1.5 billion fund to subsidize the purchase of non-MVPD converter boxes in anticipation of the analog broadcasting cut-off.[26] There will be much less subsidy needed if more consumers already have the capability to receive digital transmissions using MVPD-supplied digital devices. Absent a delay of the implementation date, the price of MVPD-supplied devices will be higher by $2-3 per month than it otherwise would be. At the same time the government has agreed to make available a huge public subsidy, it is counterproductive to discourage consumers from switching to digital receiver devices by raising their price. Not only would the switch avoid using public funds, it would also empower consumers to benefit from the array of interactive digital services, such as parental controls and video-on-demand, that they will be able to access in addition to broadcast channels.

Finally, absent some otherwise compelling need which does not exist in this instance, competitors should not be treated in a disparate fashion. Even though DBS operators, which serve approximately 28% of all MVPD subscribers,[27] have moved almost completely to a business model that relies on the provision of proprietary set-top boxes, they remain exempt from the integration ban. In light of the substantial compliance costs required to implement the ban, cable and telephone companies would be put at a competitive marketplace disadvantage in a price-sensitive marketplace if they are forced to incur these costs while DBS operators are not.

[23] NCTA Waiver Request, at 9; Verizon Waiver Request, at 3.
[24] NCTA Waiver Request, at 7; Verizon Waiver Request, at 15.
[25] NCTA Waiver Request, at 8.
[26] Title III of the Deficit Reduction Act of 2005, Pub. L. 109-171, 120 Stat. 4, 21 (February 8, 2006).
[27] Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Twelfth Annual Report, MB Docket 05-255, FCC 06-11, released March 3, 2006, at para. 13 (hereinafter "Twefth Annual Report").

IV. In 1996 Congress Envisioned That Relief From Any FCC Equipment Regulations Might Well Be Warranted

Although in some respects the 1996 Telecom Act is ambiguous,[28] fortunately, with regard to the navigation device regulations Congress was unambiguous in its recognition that developments might well outrun any FCC mandates. So it expressly stated that the agency must waive any regulation if "necessary to assist the development or introduction of a new or improved multichannel video programming or other service offered over multichannel video programming systems, technology, or products."[29] While agencies have considerable inherent authority to waive regulations,[30] Congress usually does not include such express waiver authority in particular statutory provisions unless it wishes to make a point. In this instance, as an indication of its awareness that prompt relief from the equipment regulations might be needed, Congress added that "[u]pon an appropriate showing, the Commission shall grant any such waiver request within 90 days of any application filed…."[31]

Apart from the explicit waiver authority, Congress included in Section 629 another atypical provision. Any navigation device regulations issued by the Commission automatically sunset when the Commission determines that the MVPD programming and navigation device markets are fully competitive and that elimination of the regulations would promote competition and the public interest.[32] While the 1996 Act contains a generic biennial regulatory review provision requiring repeal of all agency regulations that are no longer in the public interest,[33] the specific "sunset" requirement found in Section 629 is unusual in the Communications Act, as well as in other statutes. It can only be taken as another indication that, in 1996, Congress understood the importance of making sure that any regulations issued by the Commission did not remain in effect if they would no longer promote the public interest and consumer welfare.

V. Current Technological and Marketplace Circumstances Require Regulatory Relief

Certainly in light of the factors discussed above —the near-term prospect of downloadable security, facilitating the DTV transition, and competitive equity— at the very least the Commission should act promptly to extend the

---

[28] Recall Justice Scalia's remark: "It would be gross understatement to say that the 1996 Act is not a model of clarity. It is in many important respects a model of ambiguity…." AT&T Corp. v. Iowa Utils. Bd., 525 U.S. 366, 397 (1999).
[29] 47 U.S.C. § 549 (c).
[30] See generally WAIT Radio v. FCC, 418 F.2d 1153, 1157 (D.C. Cir. 1969) ("[A]n application for waiver has an appropriate place in the discharge by an administrative agency of its assigned responsibilities. The agency's discretion to proceed in difficult areas through general rules is intimately linked to the existence of a safety valve procedure for consideration of an application for exemption based on special circumstances.")
[31] 47 U.S.C. § 549 (c).
[32] 47 U.S.C. § 549 (e).
[33] See 47 U.S.C. § 161.

current July 2007 implementation date for the integration ban. It can do this by granting the waiver petitions before it. During this waiver period, the agency should continue to monitor developments closely.

At the same time it extends the implementation date, the Commission should commence a review to determine whether the sunset conditions for the equipment regulations have been met. Certainly a good case can be made that they have been. A review of the Commission's most recent annual video competition report indicates the extent to which the MVPD market is now competitive. At the outset the Commission declares: "The market for the delivery of video programming services is served by a number of operators using a wide range of distribution technologies."[34] Based on its collection of a comprehensive set of data, the Commission summarized its findings this way:

> We find that almost all consumers have the choice between over-the-air broadcast television, a cable service, and at least two DBS providers. In some areas, consumers also may have access to video programming delivered by emerging technologies, such as digital broadcast spectrum, fiber to the home, or video over the Internet. In addition, through the use of advanced set-top boxes and digital video recorders, and the introduction of new mobile video services, consumers are now able to maintain more control over what, when, and how they receive information. Further, MVPDs of all stripes are offering nonvideo services in tandem with their traditional video services.[35]

The world described by the Commission in the most recent video competition report obviously is a far cry from the one that existed at the time of the 1996 Act's enactment. Even since the issuance of the last report, the "telephone companies" have made further strides in entering the MVPD marketplace. While the data contained in the Commission's report provides the empirical evidence of the competitive landscape, even a casual perusal of the newspaper drives home that point almost daily. For instance, take just two stories from the September 28 edition of The Wall Street Journal. The first, headlined "Verizon Says TV, High-Speed Web Services on Track," contains the following statement: "The telephone carrier has reinvented itself as a video provider to better compete with cable companies, many of which can now offer customers a bundle of services that include Internet, TV and phone."[36] The second, titled "As TV Gains Popularity, Cable Firms Bulk Up Offerings," begins: "With Internet video gaining in popularity, pay-TV companies are pondering a future in which they will have to share the spotlight with online video providers."[37] Citing Nielsen/NetRatings, the article reports: "Video Web sites now draw users in numbers that rival those of cable or satellite companies." Pick up a daily

---

[34] Twelfth Annual Report, at para. 3.
[35] Id., at para. 5.
[36] "Verizon Says TV, High-Speed Web Services on Track," Wall Street Journal, September 28, 2006, at B3.
[37] "As Internet TV Gains in Popularity, Cable Firms Bulk Up Offerings," Wall Street Journal, September 28, 2006, at B4.

newspaper or the trade press on any given day and most likely you will find similar reports concerning the increasingly competitive market for video services, as well as other voice and Internet access.

When the Commission considers whether the sunset conditions have been met, in connection with its public interest determination it should have in mind the benefits to consumer welfare from vertical integration as well as potential costs. Separation requirements, such as those imposed by the integration ban, always impose costs in terms of foregone efficiencies. They almost never represent sound policy in competitive market situations. Indeed, integration bans may not represent sound policy even in situations in which a regulated service provider has a monopoly. A leading text summarizes its discussion of vertical integration bans this way:

> The potential cost to such a [separation] policy is the wasted resources due to preventing the most efficient firm from competing. Such inefficiencies would tend to raise price. The social optimality of separation then depends on the ability of the *regulated monopolist* to pursue anticompetitive practices in an unregulated market and the degree of economies of scope that may exist between the regulated and unregulated products.[38]

For the past twenty or so years, there has been a widely shared view among regulatory economists that "even a *platform monopolist* often has incentives to make efficient choices about when to maintain modularity and when to get involved in an adjacent market."[39] According to Professors Farrell and Weiser, a "*platform monopolist* gains from an efficient market--whether that be unbridled competition, integration without independents, licensing of a limited set of independents, or some attempt to combine these or other structures."[40]

I highlighted "regulated monopolist" and platform monopolist" to call attention to the fact that the efficiency costs imposed by bans on vertical integration often outweigh the benefits of such bans *even* in markets characterized as monopolistic. In this instance, as shown above, the MVPD market can no longer be so characterized, if ever it could be. Competitive alternatives to MVPD-supplied equipment devices already are available, even absent implementation of an integration ban. In the current competitive environment, all MVPD providers have every incentive not only to allow, but to encourage, the use of whatever equipment will maximize the value of their service platform in the eyes of consumers. Having invested billions of dollars in

---

[38] W. Kip Vicusi, John M. Vernon, Joseph E. Harrington, Jr., ECONOMICS OF REGULATION AND ANTITRUST, THIRD EDITION, 2000, at 483.
[39] Joseph Farrell and Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age,* 17 HARVARD JOUR. OF LAW AND TECHNOLOGY 85, 97 (2003) (Emphasis supplied).
[40] Id., at 104 (Emphasis supplied).

upgrading their networks to provide an array of digital services,[41] the broadband service providers cannot afford to do otherwise.

VI. Conclusion

In sum, in light of the fast-changing technological and marketplace developments, the case for promptly granting waivers which extend the current implementation date of the navigation device integration ban is compelling in order to avoid imposing significant costs on consumers without countervailing benefits. And the same changed technological and marketplace developments should impel the Commission at the same time to begin a review to determine whether the agency's navigation device regulations should be eliminated entirely pursuant to the congressional sunset directive.

The Free State Foundation
10701 Stapleford Hall Dr.,Potomac, MD 20854
Tel. 301-299-3182 Fax: 301-299-5007 E-Mail: rmay@freestatefoundation.org
www.freestatefoundation.org

[41] Since 1996, the cable industry has spent over $100 billion in upgrading its infrastructure to provide digital broadband services. See http://www.ncta.com/ContentView.aspx?contentId=56. Verizon estimates that its fiber-optic network upgrade will require a net investment of $18 billion through 2010. "Verizon Says TV, High-Speed Web Services on Track," Wall Street Journal, September 28, 2006, at B3.