

**Lock Down on the Third Screen:
How Wireless Carriers Evade Regulation of Their Video Services**

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ABSTRACT

Wireless handsets increasingly offer subscribers a third screen for accessing the Internet and video programming. The converging technologies and markets that make this possible present a major regulatory quandary, because national regulatory authorities seek to maintain mutual exclusivity between regulated telecommunications services and largely unregulated information services.

Many existing and emerging services do not easily fit into one or the other regulatory classification, nor can the Federal Communications Commission determine the appropriate classification by extrapolating from the regulatory model applied to existing or discontinued services. By failing to specify what model applies to services appearing on cellphone screens, the FCC has failed to remove regulatory uncertainty. Cellular telephone service providers may infer from the Commission's inaction that any convergent service eventually will qualify for the unregulated information service "safe harbor" despite plausible arguments that government oversight remains essential to achieve consumer protection, national security, fair trade practice, and other safeguards.

This essay will examine the regulatory status of wireless carrier-delivered video content with an eye toward determining the necessary scope and nature of government oversight. The essay reports on instances where the FCC deemed it necessary to promote video programming

competition and subscriber access to wired cable television content, and concludes that wireless subscribers deserve similar efforts in light of wireless carriers' incentives and abilities to blunt competition. The essay concludes that NRAs must balance the carriers' interests in finding new revenue centers to pay for next generation network upgrades with subscribers' interests in maximizing their freedom to use handsets they own.

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Wireless handsets increasingly deliver more than tetherless telephone calls, text messaging, and ringtones. Next generation networks and the sophisticated handsets that access them, offer a variety of new information, communications, and entertainment (“ICE”) services. Wireless handsets have begun to function more like mobile computers providing consumers a third screen alternative to televisions and larger desktop and laptop computers.¹

The wireless third screen has the potential to offer users mobile access to everything the Internet can provide. However, it has become clear that most wireless carriers have a financial interest in steering subscribers to a more limited “walled garden”² of content and services provided by the carrier, an affiliate of the carrier, or a third party that has secured preferential access to the carrier’s subscribers in exchange for sharing revenues. Unlike computer terminals where users have easy and unfettered opportunities to exit the carrier’s walled garden, wireless subscribers may experience difficulty, and incur additional costs when departing from wireless carriers’ walled gardens.

¹ See, e.g., Nick Wingfield, *Time to Leave the Laptop Behind*, THE WALL STREET JOURNAL, Oct. 27, 2008; available at: <http://online.wsj.com/article/SB122477763884262815.html>; International Telecommunication Union, ITU New Initiatives Programme: The Regulatory Environment for Future Mobile Multimedia Services, World Wide Web Site, available at: <http://www.itu.int/osg/spu/ni/multimobile/index.html>.

² Walled gardens constitute carrier-delivered content provided to subscribers in a user-friendly, expedited basis. For example, a wireless carrier might offer access to a preferred search engine, or source of content by offering a one step process. Subscribers seeking to access non-preferred content, typically would have to undertake several steps which add time, complexity, inconvenience and possibly higher cost in the determination whether to opt out of walled garden options. “Although U.S. mobile service providers tend to keep tight control on what applications are available and what services consumers can access on mobile handsets by selling content through their own branded portals (the ‘walled garden’ approach), operators have begun selectively to allow third-party content providers to market multimedia content directly to their subscribers, in exchange for a share of the revenue generated by the sale of these services.” Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, WT 07-71, Twelfth Report, 23 FCC Rcd. 2241, 2315 (2008).

Internet Service Providers (“ISPs”) have limited control over users’ computer terminals, and video programmers have no power to restrict how television owners use their sets to access recorded, or real time programming. On the other hand, wireless carriers can and do impose substantial operational limitations on handset use. Some of these restrictions represent necessary safeguards in light of the fact that wireless handsets use radio spectrum and require a technical interface to access specified channels using a predetermined format. But most restrictions result when carriers seek to recoup financial subsidies for handsets sold in conjunction with new, or renewed service agreements. Additionally, carriers seek strategic opportunities to squeeze out more revenues per subscriber, to prevent migration to the services of another carrier, and to keep subscribers within the confines of a carrier’s walled gardens.

This paper will examine the regulatory status of wireless carrier-delivered video content with an eye toward determining the necessary scope and nature of government oversight. In the United States, the Communications Act of 1934, as amended, establishes mutual exclusivity³ between telecommunications,⁴ information⁵ and cable television services.⁶ Converging technologies and

³ “[T]he language and legislative history of [the Communications Act of 1996] indicate that the drafters . . . regarded telecommunications services and information services as mutually exclusive categories.” Federal-State Joint Board on Universal Service, Report to Congress, 13 FCC Rcd. 11501, 11522 (1998); *see also* Vonage Holdings Corp., 290 F. Supp.2d at 994, 1000 (applying the FCC’s dichotomy).

⁴ Telecommunications is defined as “the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.” 47 U.S.C. § 153(43). Telecommunications service means “the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.” 47 U.S.C. § 153(46). The Communications Act defines telecommunications carrier as “any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226). A telecommunications carrier shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage.” 47 U.S.C. § 153(44).

markets all but guarantee instances where a single venture provides more than one type of service, but the Federal Communications Commission (“FCC”) has evidenced a disinclination to apply two different regulatory regimes. Accordingly, the FCC treats wireless carriers as qualifying for largely unregulated status, despite the fact that these carriers continue to provide regulated telecommunications services and their video programming could readily fit within the cable classification.

The paper concludes that national regulatory authorities (“NRAs”) must balance the carriers’ interests in finding new revenue centers to pay for next generation network upgrades with subscribers’

While information service providers use telecommunications to transmit bitstreams, the FCC has chosen not to separate this functionality from the information processing that also occurs. In other words the FCC considers telecommunications to be subordinate to and fully integrated with the predominant information service.

⁵ Information service is defined as “the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.” 47 U.S.C. § 153(20).

⁶ Cable service is defined as “(A) the one-way transmission to subscribers of (i) videoprogramming, or (ii) other programming service, and (B) subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service.” 47 U.S.C. § 522(6). The term “cable system” refers to “a facility, consisting of a set of closed transmission paths and associated signal generation, reception, and control equipment that is designed to provide cable service which includes video programming and which is provided to multiple subscribers within a community, but such term does not include (A) a facility that serves only to retransmit the television signals of 1 or more television broadcast stations; (B) a facility that serves subscribers without using any public right-of-way; (C) a facility of a common carrier which is subject, in whole or in part, to the provisions of title II of this Act, except that such facility shall be considered a cable system (other than for purposes of section 621(c)) to the extent such facility is used in the transmission of video programming directly to subscribers, unless the extent of such use is solely to provide interactive on-demand services; (D) an open video system that complies with section 653 of this title; or (E) any facilities of any electric utility used solely for operating its electric utility systems.” 47 U.S.C. § 522(7). “Video programming” means “programming provided by, or generally considered comparable to programming provided by, a television broadcast station.” 47 U.S.C. § 522(20).

interests in maximizing their freedom to use handsets they own. NRAs should help promote carriers' exploitation of technological and marketplace innovations that make it possible for wireless carriers to provide a combination of telecommunications, information, and video programming services. But regulators also must guard against carrier anticompetitive strategies designed to favor their ICE services by handicapping access to alternative sources. The paper concludes that because the FCC considers it necessary to promote video programming competition and access for wired cable television ventures, the Commission must undertake similar efforts to promote wireless access, because wireless carriers have equivalent incentives and abilities to blunt competition.

I. The Regulatory Quandary Presented By Third Screen Convergence

Innovations in wireless handsets make it possible for devices to provide access to a variety of ICE services that include telephone calling, information services, e-commerce applications, position location functions, as well as access to the Internet and video programming. Wireless handsets have become an electronic Swiss Army knife capable of exploiting ICE convergence and easily toggling between first, second, and third generation wireless functions. In the first generation of wireless handsets, users made mobile telephone calls almost exclusively. With digitization in the second generation, subscribers could engage in text messaging, photography, music downloading, and other functions that rely on memory storage, keypads, and video screens. In the evolving third generation, the wireless handset can switch between legacy functions and new features that can convert the handset into a mobile computer terminal, television set, and platform for access to most multimedia content.⁷

⁷ “Convergence in telecommunications gives many consumers access to multiple technologies or platforms that can be used to send and receive voice communications. Consumers are no longer limited to wireline platforms: they can choose from a range of platforms, including wireless and broadband. As wireless and broadband technologies have become more widely available to and used by consumers, they have increasingly become part of the competitive continuum. As more

The FCC and other NRAs appear ill-equipped to apply different regulatory regimes to the same enterprise that now can easily shift functions. Prior to the onset of robust technological and market convergence, NRAs could erect different and mutually exclusive regulations based on the single set of functions any one enterprise would offer. NRAs in most nations have established different regulatory requirements for broadcasters, cable television operators, telephone companies, and ISPs based on the specific characteristics of each type operator. Most NRAs have yet to address the impact of convergence that makes it possible for wireless carriers to offer a combination of services and functions that run the gamut of regulatory classifications.

To make matters even more complicated in the wireless marketplace, carriers blend content and conduit making it all but impossible to establish “bright line” regulatory demarcations between the provision of telecommunications transmission services and the content these links transmit. In previous regulatory regimes, NRAs could separate the content provider from the content carrier subjecting the former to little, if any, government oversight while subjecting the latter to extensive common carrier price, quality of service, and nondiscrimination regulation.

In the United States, the FCC has created a largely deregulated classification, information services, and seeks to classify as many convergence services as plausible into this category with an eye toward promoting marketplace driven competition and innovation.⁸ The FCC has opted to ignore or subordinate the conduit function provided by carriers and to emphasize that these carriers provide

consumers view and use wireless and broadband services as substitutes for wireline services, the extent to which wireline and broadband services are competitive with wireline services will increase.” Ed Rosenberg, *Assessing Wireless and Broadband Substitution in Local Telephone Markets*, The National Regulatory Research Institute, Publication No. 07-06, at 31 (June 2007) <http://nrri.org/pubs/telecommunications/07-06.pdf>.

⁸ See, e.g., *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, *Declaratory Ruling*, 22 FCC Rcd. 5901 (2007).

access to video content and information services. Reviewing courts have endorsed this regulatory and semantic sleight of hand,⁹ but the FCC has offered no sustainable model for treatment of convergent services, such as Voice over the Internet Protocol (“VoIP”)¹⁰ telephony and Internet Protocol Television (“IPTV”)¹¹ that the FCC wants to treat as unregulated services even as they compete directly with pre-existing (“legacy”) common carrier telephone and television service providers.

The FCC has largely accepted the view that wireless carriers need to qualify for a deregulated “safe harbor” so that sufficient incentives exist for these carriers to invest in next generation infrastructure and spectrum auctions.¹² This preoccupation with incentive creation ignores the likely probability that incumbent wireless carriers would invest in any new spectrum to foreclose market

⁹ Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs., 545 U.S. 967 (2005)(upholding the FCC’s determination that cable modem provided Internet access constitutes an information service). *See also*, See Rob Frieden, What Do Pizza Delivery and Information Services Have in Common? Lessons From Recent Judicial and Regulatory Struggles with Convergence, 32 RUTGERS COMPUTER. & TECH. L.J., No. 2, 247–296 (2006).

¹⁰ Voice over the Internet Protocol (“VoIP”) offers voice communications capabilities, much like ordinary telephone service, using the packet switched Internet, for all or part of the link between call originator and call recipient. VoIP calls originating or terminating over the standard, dial up telephone network require conversion from or to the standard telephone network’s architecture that creates a dedicated “circuit-switched” link, as opposed to the ad hoc, “best efforts” packet switching used in the Internet.

¹¹ Internet Protocol Television (“IPTV”) offers access to video programming via the Internet. Users can download files that contain such content for subsequent viewing. Alternatively they can receive an online “stream” of video packets corresponding to an existing file, or a simulcast of “live” programming.

¹² “[W]e seek to adopt a comprehensive policy that ensures, consistent with the Act in general and section 706 specifically, that broadband Internet access services are available to all Americans and that undue regulation does not constrain incentives to invest in and deploy the infrastructure needed to deliver broadband Internet access services. As part of this policy, we believe that we should regulate like services in a similar manner so that all potential investors in broadband network platforms, and not just a particular group of investors, are able to make market-based, rather than regulatory-driven, investment and deployment decisions.” *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, CC Docket No. 02-33, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd. 14853, 14878 (2005).

entry by new competitors and the growing reliance of incumbent wireline carriers on wireless services to generate revenues in light of declines in previous core market segments, e.g., local and long distance telephone service.

II. Wireless Carriers' Incentive and Ability to Lock Down Access

Wireless carriers have invested billions of dollars in the spectrum¹³ and infrastructure needed to provide third generation network services. In light of such risk taking, these carriers predictably seek to evade, or limit any government regulatory oversight that might constrain their ability to recoup investment, particularly by diversifying services and increasing the monthly average return per user (“ARPU”). A requirement that carriers operate in a nondiscriminatory manner, constitutes a fundamental component of conventional telecommunications service regulation, still fully applicable to wireless carriers when they provide voice telephone services.¹⁴ But in their capacity as information

¹³ See Federal Communications Commission, Auctions Summary; available at: http://wireless.fcc.gov/auctions/default.htm?job=auctions_all.

¹⁴ The FCC uses the term Commercial Mobile Radio Service (“CMRS”) to identify the basic telephone services provided by wireless carriers. See Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, 107 Stat. 312, amending Section 332 of the Communications Act of 1934, to create the CMRS carrier category. The law defines CMRS as “any mobile service . . . that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public.” 47 U.S.C. § 332(d)(1)(2006). CMRS operators do enjoy regulatory forbearance of some specified regulations, e.g., the need to file tariffs that establish the terms and conditions for service. However, for regulation not explicitly removed, CMRS carriers must comply with Title II regulatory requirements and the FCC can forbear from applying any of the remaining regulations, only upon determining that consumers will remain protected against unreasonable and discriminatory service and that the public interest supports forbearance. “A person engaged in the provision of a service that is a commercial mobile service shall, insofar as such person is so engaged, be treated as a common carrier for purposes of this chapter, except for such provisions of subchapter II of this chapter as the Commission may specify by regulation as inapplicable to that service or person. In prescribing or amending any such regulation, the Commission may not specify any provision of section 201, 202, or 208 of this title, and may specify any other provision only if the Commission determines that— (i) enforcement of such provision is not necessary in order to ensure that the charges, practices, classifications, or regulations for or in connection with that service are just and reasonable and are not unjustly or unreasonably discriminatory; (ii) enforcement of such provision is not necessary for

and video programming providers, wireless carriers do not trigger conventional telephone service regulation. Wireless carriers want the FCC and the public to conclude that in the absence of Title II common carrier regulation, little statutory authority exists as a foundation for regulation.

Wireless carriers do not evade regulation simply because a portion of what they offer does qualify for comparatively less regulatory oversight than what offering telecommunications service triggers. Nevertheless, a prominent Wall Street Journal industry analyst has concluded that the wireless carriers have succeeded in creating the inference that they are unregulatable:

“A shortsighted and often just plain stupid federal government has allowed itself to be bullied and fooled by a handful of big wireless phone operators for decades now. And the result has been a mobile phone system that is the direct opposite of the PC model. It severely limits consumer choice, stifles innovation, crushes entrepreneurship, and has made the U.S. the laughingstock of the mobile-technology world, just as the cellphone is morphing into a powerful hand-held computer. . . . That’s why I refer to the big cellphone carriers as the ‘Soviet ministries.’ Like the old bureaucracies of communism, they sit athwart the market, breaking the link between the producers of goods and services and the people who use them.”¹⁵

The FCC strongly prefers to shoehorn any and all converged services into the lightly regulated information services “safe harbor,”¹⁶ including wireless broadband Internet access.¹⁷ With rare

the protection of consumers; and (iii) specifying such provision is consistent with the public interest.” 47 U.S.C. §332(c)(1)(A)i-iii (2006). *See also* 47 U.S.C. §160(a)(2006)(establishing similar forbearance criteria for other telecommunications service providers). Put another way, CMRS operators do not avoid most basic common carrier responsibilities simply because they provide wireless services, subject to partial regulatory forbearance.

¹⁵ Walt Mossberg, *Free My Phone*, All Things Digital Blog, (Oct. 21, 2007); available at: <http://mossblog.allthingsd.com/20071021/free-my-phone/>.

¹⁶ A safe harbor constitutes “[a]n area or means of protection [or a] provision (as in a statute or regulation) that affords protection from liability or penalty.” BLACK’S LAW DICTIONARY (8th ed. 2004).

¹⁷ *See* Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks, Declaratory Ruling, WT Docket No. 07-53, FCC 07-30 (rel. March 23, 2007); available at: http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-07-30A1.pdf.

exception, the FCC appears reluctant to hold wireless operators to the still applicable Title II requirements, despite having not undertaken the examination necessary to forbear officially from regulating.¹⁸

Wireless carriers' efforts to frame the debate in terms of whether their video programming qualifies for deregulation as an information service largely shifts attention from a more fundamental question whether these carriers have the incentive and ability to discriminate in ways that harms the public interest. When cable television ventures attempt to favor corporate affiliates, or stifle competition in the delivery of, and access to video programming, the FCC has aggressively intervened.

III. Curbing Cable Television Market Power in Video Programming Access

The FCC has expressed longstanding concerns that cable television ventures have the incentive and ability to harm consumers by establishing vertically integrated firms¹⁹ that create and distribute "must see" content while restricting or denying access to multi-channel video programming distributor ("MVPD") competitors:

we conclude that there are no good substitutes for some satellite-delivered vertically integrated programming and that such programming therefore remains necessary for

¹⁸ Section 10 of the Telecommunications Act, *codified at* 47 U.S.C. §160(a)(1)-(3) (2006) authorizes the FCC to forbear from applying specific aspects of Title II regulation if enforcement of such regulation is no longer necessary to ensure just and reasonable charges, is not necessary for protecting consumers and forbearance would serve the public interest.

¹⁹ Vertical integration refers to the combination of separate market activities by a single enterprise. For example, the major cable television companies own ventures creating video programming as well as the ventures that distribute such content to consumers. "Vertical relationships may have beneficial effects, or they may deter competitive entry in the video marketplace and/or limit the diversity of programming." Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Twelfth Annual Report, 21 FCC Rcd. 2503, 2575 (2006). "Beneficial effects can include efficiencies in the production, distribution, and marketing of video programming, and providing incentives to expand channel capacity and create new programming by lowering the risks associated with program production ventures." *Id.* at n. 565. "Possible detrimental effects can include unfair methods of competition, discriminatory conduct, and exclusive contracts that are the result of coercive activity." *Id.* at n. 566.

viable competition in the video distribution market. Based on this finding, we conclude that vertically integrated programmers continue to have the ability to favor their affiliated cable operators over competitive MVPDs such that competition and diversity in the distribution of video programming would not be preserved and protected absent the rule. Although we find some trends in the markets for both video programming and video distribution since 2002 that might decrease the incentive of vertically integrated programmers to withhold programming from competitive MVPDs, we also find some trends that increase their incentive to withhold programming, such as the increase in horizontal consolidation of the cable industry, the increase in cable clustering, and the recent emergence of new competitors. We also find specific factual evidence that, where the exclusive contract prohibition does not apply, such as in the case of terrestrially delivered programming, vertically integrated programmers have withheld and continue to withhold programming from competitive MVPDs.²⁰

Because cable television companies generate the vast majority of desired video content and control the major medium for distributing the content, the FCC has expressed concern that the cable companies can stifle competition, extract rates above competitive levels from subscribers, favor affiliated content providers, and stifle the development of new content sources. This concern for the consumer and determination of market failure juxtaposes with the Commission's lack of concern with similarly integrated providers of wireless video services.

The FCC has such grave concerns about the incentive and ability of cable television ventures to stifle consumer access to content that the Commission decided to extend for five more years a ban on exclusive contracts between vertically integrated programmers and cable operators to October 5, 2012.²¹ The Commission determined that that vertically integrated programmers still have the

²⁰ Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in Video Programming Distribution: Section 628(c)(5) of the Communications Act: Sunset of Exclusive Contract Prohibition Review of the Commission's Program Access Rules and Examination of Programming Tying Arrangements, 22 FCC Rcd. 17791, 17810 (2007).

²¹ “[W]e find that the exclusive contract prohibition continues to be necessary to preserve and protect competition and diversity in the distribution of video programming, and accordingly, retain it again for five years, until October 5, 2012.” *Id.* at ¶1.

ability²² and the incentive²³ to favor the operators with whom they are affiliated over other competitive providers.²⁴ In light of the FCC's determination that vertically integrated ventures still control, "must see" content, for which no viable substitute exists,²⁵ the Commission retained the prohibition against exclusive content distribution contracts from ventures that vertically integrate content production and distribution to consumers.

²² "What is most significant to our analysis is not the percentage of total available programming that is vertically integrated with cable operators, but rather the popularity of the programming that is vertically integrated and how the inability of competitive MVPDs to access this programming will affect the preservation and protection of competition in the video distribution marketplace. While there has been a decrease since 2002 in the percentage of the most popular programming networks that are vertically integrated, we find that the four largest cable MSOs (Comcast, Time Warner, Cox, and Cablevision) still have an interest in six of the Top 20 satellite-delivered networks as ranked by subscribership, seven of the Top 20 satellite-delivered networks as ranked by prime time ratings, almost half of all RSNs, popular subscription premium networks, such as HBO and Cinemax, and video-on-demand ("VOD") networks, such as iN DEMAND." *Id.* at ¶37.

²³ "An exclusive arrangement between a cable-affiliated programmer and its affiliated cable operator will reduce the number of platforms distributing the cable-affiliated programming network and thus the total number of subscribers to the network. This results in a reduction in potential advertising or subscription revenues that would otherwise be available to the network. In the long term, however, the cable-affiliated programmer would gain from an increased number of subscribers as customers switch to the affiliated cable distribution service in order to receive the exclusive programming. Thus, an exclusive contract is a kind of "investment," in which an initial loss of profits from programming is incurred in order to achieve higher profits later from increased cable distribution. This type of arrangement is most profitable when the costs of the investment are low and its benefits are high." *Id.* at ¶44.

²⁴ "We find that access to vertically integrated programming is essential for new entrants in the video marketplace to compete effectively. If the programming offered by a competitive MVPD lacks "must have" programming that is offered by the incumbent cable operator, subscribers will be less likely to switch to the competitive MVPD. We give little weight to the claims by cable operators that recent entrants, such as telephone companies, have not experienced "any trouble" to date in acquiring access to satellite-delivered vertically integrated programming." *Id.* at ¶41.

²⁵ "[W]e conclude that there are no good substitutes for some satellite-delivered vertically integrated programming and that such programming therefore remains necessary for viable competition in the video distribution market." *Id.* at ¶29.

The FCC declined to narrow its restriction based on programmer suggestions that the Commission should apply the restriction based on the popularity of the programming network and competitive circumstances occurring in specific geographic areas served by a cable operator.²⁶ Additionally the Commission refused to limit the restriction to conventional cable television operators, which would exclude other MVPDs, or to limit the restriction to cable operators that have been in the MVPD market for more than five years, have extensive resources, and have entered into exclusive contracts for programming.²⁷

On the other hand, the FCC declined to expand the exclusive contract prohibition to apply to non-cable-affiliated programming, e.g., content created by vertically integrated DBS operators and new MVPDs such as AT&T and Verizon. The Commission also concluded that terrestrially delivered programming is beyond the scope of the exclusive contract prohibition in Section 628(c)(2)(D) that applies specifically to content delivered via satellite. However, in light of finding that a vertically

²⁶ “The exclusive contract prohibition in Section 628(c)(2)(D) [of the Communications Act] and the implementing rules pertain to all satellite-delivered programming networks that are vertically integrated with a cable operator, regardless of their popularity.” *Id.* at ¶68. “One of the key anticompetitive practices that the exclusive contract prohibition addresses is the practice of leveraging cable’s market power collectively by withholding affiliated programming from rival MVPDs while selling the affiliated programming to other cable operators which do not compete with one another. A cable operator may gain by weakening a current or potential rival (such as a DBS operator) even in markets that the cable operator itself does not serve. Thus, proposals to narrow the exclusive contract prohibition by allowing exclusive arrangements outside of the footprint of the affiliated cable operator or with cable operators whose networks pass only a small number of households throughout the nation will impede competition in the video distribution marketplace. We similarly find that allowing exclusive arrangements for affiliated cable operators that face competition from both DBS and telephone companies would harm competition in the video distribution marketplace. We conclude herein that a cable operator will not lose the incentive and ability to enter into an exclusive arrangement in a given geographic area simply because it faces competition from both DBS operators and telephone companies in that area.” *Id.* at ¶72.

²⁷ “Section 628 makes no distinction among MVPDs of the kind suggested by these commenters. Moreover, we find that adopting such restrictions on the entities that can benefit from the prohibition will limit competition in the video distribution market and will result in no discernible public interest benefits.” *Id.* at ¶74.

integrated cable television operator had withheld terrestrially delivered regional sports network content in San Diego and Philadelphia, the FCC sought comment whether to extend the program access rules to all terrestrially delivered cable-affiliated programming.²⁸

A. Prohibition on Tier-Buy Through Requirements

The FCC also limits the ability of cable operators to force subscribers to pay for content they do not want, so that they can “qualify” for accessing desired content. Section 3 of the 1992 Cable Act²⁹ prohibits cable television operators, operating in a market without effective competition, from requiring subscribers to “buy through”³⁰ intermediate tiers of programming in order to have the opportunity to access desired content positioned in a higher service tier. This means that consumers do not have to subscribe to so-called enhanced basic services, which bundle a variety of cable television programming, before securing the opportunity to view content offered on a per view, or per

²⁸ “As demonstrated by the examples of withholding of RSNs in San Diego and Philadelphia, we believe that withholding of terrestrially delivered cable-affiliated programming is a significant concern that can adversely impact competition in the video distribution market. To address this concern, we seek comment on whether it would be appropriate to extend our program access rules to all terrestrially delivered cable-affiliated programming pursuant to Sections 4(i), 201(b), 303(r), 601(6), 612(g), 616(a), 628(b), or 706, or any other provision under the Communications Act.” *Id.* at ¶116.

²⁹ Public Law, 102-385, 106 STAT. 1460, *codified at* 47 U.S.C. § 543(80(A)(2006). “A cable operator may not require the subscription to any tier other than the basic service tier required by paragraph (7) as a condition of access to video programming offered on a per channel or per program basis. A cable operator may not discriminate between subscribers to the basic service tier and other subscribers with regard to the rates charged for video programming offered on a per channel or per program basis.”

³⁰ “The tier buy-through prohibition of the 1992 Cable Act prohibits cable operators from requiring subscribers to purchase a particular service tier, other than the basic service tier, in order to obtain access to video programming offered on a per-channel or per-program basis.” Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation Buy-Through Prohibition, Third Order on Reconsideration, 9 FCC Rcd. 4316, ¶25 (1994). *See also*, Federal Communications Commission, Fact Sheet, Consumer Options for Selecting Cable Channels and the Tier Buy-Through Prohibition, (Feb. 2003); available at: http://fjallfoss.fcc.gov/edocs_public/attachmatch/DOC-231469A1.pdf.

channel basis, such as individual premium channels like Home Box Office. The Commission also has explored the prospect of allowing consumers to select content on an ala carte, network-by-network basis in lieu of service tiers that contain many channels of content, some of which individual consumers may not want.

B. Forced Alternatives to Mandatory Set Top Box Leases

The FCC also has established rules designed to enable cable television subscribers to access content via “cable ready” television sets³¹ without the expense of having to lease a device, known as a set top converter to provide necessary signal descrambling functions. The FCC prohibits cable television companies from offering set top converters that combine security functions, e.g., descrambling, and other features, such as channel selection and navigation, electronic program guides, and pay per view, on-demand access to content. The prohibition prevents cable companies from requiring all subscribers to lease set top boxes.³² With the integration ban, cable television companies

³¹ Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, CS Docket No. 97-80, Second Report and Order, 20 FCC Rcd. 6794 (2005).

³² “At the heart of a robust retail market for navigation devices is the reliance of cable operators on the same security technology and conditional access interface that consumer electronics manufacturers must rely on in developing competitive navigation devices. We conclude that a software-oriented conditional access solution may provide a ‘common reliance’ standard capable of both reducing the costs for set-top boxes and adding significantly to the options that equipment manufacturers now have in using the CableCARD. In balancing our specific statutory requirement to assure commercial availability of navigation devices and our general obligation to facilitate and promote the DTV transition, we conclude that a further extension of the effective date of the prohibition on integrated devices will permit the development of the statutorily required competitive market for navigation devices, with the potential benefit of reducing costs to consumers.” *Id.* 20 FCC Rcd. at 6807-08.

can perform security and digital rights management via a computer chip known as a CableCard that subscribers can insert into most recent vintage television sets.³³

Several cable operators challenged the FCC's CableCard policy prohibition on set top boxes providing both security and non-security functions. As it had done previously,³⁴ the D.C. Circuit Court of Appeals affirmed the Commission on several grounds. The court first refused to consider petitioners' statutory claim that a difference exists between set top converter boxes and other equipment within the context of Section 629(a) of the Communications Act, as amended, which states that the FCC "shall not prohibit any [MVPD] from also offering converter boxes, interactive communications equipment, and other equipment used by consumers to access multi-channel video programming . . ."³⁵ The court characterized the petitioners' claim as arguing "that if integrated set-top boxes are not 'converter boxes,' as we held in *General Instrument*, then they must be 'other equipment,' a possibility we did not address there. And if integrated boxes are 'other equipment,' then section 629(a)'s second sentence prevents the FCC from barring cable operators from offering them."³⁶

³³ "[A] CableCARD . . . plugs into a slot in a host navigation device, permitting the device to perform both the security and non-security functions." *Charter Communications, Inc. v. Federal Communications Commission*, 460 F.3d 31, 34 (D.C. Cir. 2006) available at: http://www.cesweb.org/shared_files/edm/2006/govalert/DCCircuitAdvanceNewhousevFCCOrder081806.pdf. [hereinafter cited as *CableCard Affirmance*].

³⁴ *See General Instrument Corp. v. FCC*, 213 F.3d 724 (D.C. Cir. 2000) (affirming the FCC's statutory authority to require separation of security and other set top converter functions); *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 13 FCC Rcd 14775, 14806, ¶ 76 (1998).

³⁵ 47 U.S.C. § 549(a).

³⁶ *Cablecard Affirmance*, 460 F.3d at 37-38.

The court refused to consider this statutory claim on two procedural grounds: 1) that section 629(a) established a 60 day time period for any petitions for review of applicable Commission orders; and 2) that the petitioners never presented this issue for consideration by the FCC and therefore Section 405 of the Communications Act precludes raising the issue on appeal. The court also rejected petitioners' arguments that changed circumstances so warranted a different outcome that the FCC should have abandoned the nonintegration requirement. Given the fact that while CableCard compatible television sets had become commonplace, few consumers use CableCards, the court held "there was nothing unreasonable about the FCC's conclusion that 'the competitive reasons that led the Commission to impose the integration ban have not been eliminated by the developments in the market.'" ³⁷

Additionally the court rejected the claim that the FCC failed to consider the additional costs cable companies would incur as a result of the ban:

The Commission also took steps to minimize industry costs, both by extending the implementation deadline from 2006 to 2007, and by promising to reconsider eliminating the ban altogether should the cable and consumer electronics industries achieve a downloadable security solution capable of providing common reliance without requiring the physical separation of security and non-security functions. ³⁸

The court also rejected the claim that the FCC arbitrarily exempted DBS operators from the integration ban. The court upheld the exemption of DBS operators from the ban based on the criteria established by the Commission: when an MVPD "supports the active use by its subscribers of navigation devices that: (i) operate throughout the continental United States, and (ii) are available from

³⁷ *Id.* 460 F.3d at 41 *citing* Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices, Second Report and Order 20 FCC Rcd 6794 at 6809 ¶ 28 (2005).

³⁸ *Id.* 460 F.3d at 42

retail outlets . . . throughout the United States that are not affiliated with the [MVPD].”³⁹ The court noted that DBS operators have met the requirements while “the vast majority of cable subscribers remain dependent upon non-portable converter boxes available only from their cable companies.”⁴⁰ Lastly the court rejected the cable operators’ claims that increased facilities-based competition, e.g., video program delivery from telephone companies, has created incentives for cable companies to offer consumers every possible equipment alternative:

whatever the theoretical incentives, the FCC found that the real-world result that section 629(a) commanded it to assure-the commercial availability of navigation devices from vendors unaffiliated with MVPDs-has not arrived.⁴¹

Cable operators have largely thwarted the Congressional mandate that consumers have the option of using alternatives to the operator leased devices. While a competitive market for such devices has not evolved and few consumers even know about the CableCard option, recent innovations in digital video recorders may incorporate many of the features provided by the cable operators. From recent decisions by the FCC it appears that cable operators will no longer succeed in stalling compliance with Section 629 of the Communications Act.⁴²

³⁹ 47 C.F.R. § 76.1204(a)(2)

⁴⁰ Cablecard Affirmance, 460 F.3d at 43.

⁴¹ *Id.* 460 F.3d at 44.

⁴² *See* Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices, 20 FCC Rcd. 6794, 6802-03, ¶ 13 (2005) *pet. for review denied*, Charter Communications, Inc. v. FCC, 460 F.3d 31 (D.C. Cir. 2006); Comcast Corporation Request for Waiver of Section 76.1204(a)(1) of the Commission’s Rules, Memorandum Opinion and Order, CSR-7012-Z (rel. Jan. 10, 2007); available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-07-49A1.doc.

IV. Reasons Why Wireless Carriers Should Bear Content Nondiscrimination Requirements Like That Borne by Cable Operators

In light of how wireless carriers market and bundle handsets with service, the concentrated nature of the industry, and the rewards accruing from walled gardens, the FCC should subject wireless carriers to the same sort of nondiscrimination applied to cable operators. In light of the likelihood that wireless handsets increasingly will become a competitive alternative to televisions and computer terminals, regulatory parity requires that vertically integrated wireless ventures bear similar burdens as cable operators if both type venture have similar incentives and abilities to exploit market power.

A. Public Benefits and Harms from Bundling Wireless Service with Handsets

United States wireless carriers can restrict the versatility and utility of handsets primarily because most subscribers acquire subsidized handsets in exchange for a two year service commitment and acceptance of carrier-imposed limitations on handset use. Wireless subscribers have grown accustomed to acquiring “free” or inexpensive handsets, and perhaps this benefit offers ample compensation notwithstanding the fact that wireless service rates factor in the cost of the subsidy and subscribers incur substantial financial penalties for changing carriers to terminating service before completion of the two year service commitment.

Wireless carriers can lock handset access to content and lock out content providers’ access to handsets. Set out below is a list of existing lock out strategies:

- Locking handsets so that they cannot access competitor networks (by frequency, transmission format, firmware or software); in the U.S. carriers even lock handsets designed to allow multiple carrier access by changing an easily inserted Subscriber Identity Module (“SIM”);
- Using firmware “upgrades” to “brick,” i.e., render inoperative, the handset or alternatively disable third party firmware and software;
- Disabling handset functions, e.g., bluetooth, Wi-Fi access, Internet browsers, GPS services, and email clients;
- Specifying formats for accessing memory, e.g., music, ringtones, and photos;

- Creating “walled garden” access to favored video content of affiliates and partners; and
- Using proprietary, non-standard interfaces making it difficult for third parties to develop compatible applications and content.

NRAs need to impose safeguards that prevent wireless carriers from imposing limitations on handsets that have nothing to do with legitimate network management and everything to do with favoring affiliated content providers and erecting barriers to subscriber access to third party service providers. These safeguards should specify that subscribers have a right to use any technically compatible handset to access any available source of content, software, or computer application whether or not affiliated with the wireless carrier providing the link.⁴³ Long ago NRAs rejected any attempt by wireline carriers to limit, block, or disable access by handsets bought from unaffiliated suppliers.⁴⁴ Consumers take for granted the right, articulated in the *Carterfone* policy,⁴⁵ to buy and

⁴³ For a more comprehensive examination of this topic see Rob Frieden, *Hold the Phone: Assessing the Rights of Wireless Handset Owners and Carriers*, 69 PITTSBURGH LAW REVIEW, No. 4 (2008) (in production); draft available at: http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=102928.

⁴⁴ In the United States a federal court ordered the FCC in 1956 to eliminate telephone company tariff restrictions on customers’ rights to attach non-electronic acoustic devices to telephones. See *Hush-a-Phone v. United States*, 238 F.2d 266, 269 (D.C. Cir. 1956). In 1968 the FCC extended the right to include attachment of electronic devices. *Use of the Carterfone Device in Message Toll Telephone Service*, 13 FCC 2d 420 (1968), recon. denied, 14 FCC 2d 571 (1968).

⁴⁵ The *Carterfone* policy established by the FCC in 1968 requires all wireline telephone companies to allow subscribers to attach any technically compatible device. Consumers take for granted the right to attach any device to a network that is “privately beneficial without being publicly harmful.” See *Use of the Carterfone Device in Message Toll Telephone Service*, Decision, 13 FCC 2d 420 (1968), recon. denied, 14 FCC 2d 571 (1968); *Telement Leasing Corp. et al.*, 45 FCC 2d 204 (1974), *aff’d sub nom.* *North Carolina Utilities Commission v. FCC*, 537 F.2d 787 (4th Cir. 1976), *cert. denied*, 429 U.S. 1027 (1976); *Mebane Home Telephone Co.*, 53 FCC 2d 473 (1975), *aff’d sub nom.* *Mebane Home Telephone Co. v. FCC*, 535 F.2d 1324 (D.C. Cir. 1976). See also, *Public Utility Comm’n of Texas v. FCC*, 886 F. 2d 1325 (D.C. Cir. 1989) (noting long established FCC policy that carriers and non-carriers alike have a federal right to interconnect to the public telephone network in ways that are privately beneficial if they are not publicly detrimental).

Previous FCC opposition to this principle failed to pass muster with a reviewing court that interpreted the Communications Act as mandating the right of consumers to attach equipment to the network in ways that were privately beneficial but not publicly harmful. *Hush-A-Phone Corp. v.*

operate their own telephones for access to wireline networks and the same principle should apply for access to wireless networks.⁴⁶

Already many purchasers of Apple iPhones and other cellphones have resorted to “self help” tactics to eliminate manufacturer or carrier-imposed limitations on the handset’s versatility, features, and access to third party applications and content. Rather than all but criminalize such tactics, NRAs should establish a handset technical certification process that makes it possible for any handset, operating in the proper format and frequency, to access any carrier’s network. At the very least NRAs should adopt an explicit policy that forecloses wireless operators from imposing handset restrictions having no basis in legitimate network management.

B. The Wireless Carrier Marketplace is as Concentrated and Anticompetitive as Cable Television

The FCC recognizes that vertical integration in video content creation and distribution requires regulatory intervention. CMRS operators operate in a similarly concentrated and vertically integrated mode. The top two CMRS carriers, AT&T and Verizon, control 53.4% of the wireless market,⁴⁷ and are owned by the ventures that have substantial market share in broadband wireline

U.S., 238 F. 2d 266 (D.C. Cir. 1956). “The intervenors’ tariffs [prohibiting the use of plastic device to enhance privacy and low volume conversations], under the Commission’s decision, are in unwarranted interference with the telephone subscriber’s right reasonably to use his telephone in ways which are privately beneficial without being publicly detrimental.” 238 F.2d 266, 269 (D.C. Cir. 1956).

⁴⁶ See Rob Frieden, *Wireless Carterfone--A Long Overdue Policy Promoting Consumer Choice and Competition*, New America Foundation, Wireless Future Program, Working Paper No. 20 (Jan. 2008); available at: http://www.newamerica.net/events/2008/free_my_phone.

⁴⁷ Leslie Cauley, AT&T eager to wield its iWeapon, USA TODAY (May 21, 2007)(displaying statistics compiled by Forrester Research); available at: http://www.usatoday.com/tech/wireless/2007-05-21-at&t-iphone_N.htm. The top four carriers control 88.1 percent of the wireless telecommunications market and that figure will near 90% upon completion of Verizon’s acquisition of Alltel.

access, e.g., Digital Subscriber Line (“DSL”),⁴⁸ fiber optic cable links, and wireline telephone service. In addition to the possible market power accruing from a commanding share of the wireless industry, AT&T and Verizon vertically integrate by securing exclusive content distribution rights for carriage via their wireless networks. They horizontally integrate by bundling triple-play⁴⁹ and quadruple-play service packages⁵⁰ combining wireless service with wireline telephony, Internet access, and wireline video program access.

C. Incentives and Rewards from Wireless Walled Gardens

Wireless walled gardens provide carriers with the potential to extract higher revenues by greatly improving the odds that subscribers will pay for content and view advertising that generate higher payments than if subscribers had easier opportunities to use their handsets to access any content. For subscribers using a subsidized handset, wireless carriers can restrict access to competing carriers and content sources not making a payment to the carrier on grounds that the carrier fully disclosed the terms of what amounts to an installment sales contract containing lawfully restrictions on handset use.

⁴⁸ Digital Subscriber Links provide Internet access via the copper wires initially used solely to provide narrowband telephone service. Telephone companies retrofit the wires to provide medium speed broadband services by expanding the available bandwidth by about 1500 kiloHertz. The FCC provides the following definition: “Digital Subscriber Line is a technology for bringing high-speed and high-bandwidth, which is directly proportional to the amount of data transmitted or received per unit time, information to homes and small businesses over ordinary copper telephone lines already installed in hundreds of millions of homes and businesses worldwide. With DSL, consumers and businesses take advantage of having a dedicated, always-on connection to the Internet.” Federal Communications Commission, FCC Consumer Facts, Broadband Access for Consumers, available at: <http://www.fcc.gov/cgb/consumerfacts/dsl2.html>.

⁴⁹ “[T]raditional phone companies that are primed to offer a ‘triple play’ of voice, high-speed Internet access, and video services over their respective networks.” Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments, Notice of Proposed Rule Making, 22 FCC Rcd. 5935, 5938 (2007).

⁵⁰ The quadruple play refers to the combination of “video, broadband Internet access, VoIP and wireless service . . .” AT&T Inc. and Bellsouth Corporation, Application for Transfer of Control, Memorandum Opinion and Order, 22 FCC Rcd. 5662, 5735 (2007).

But even for wireless subscribers who fully own their handset, whether by completing the initial two year “rent to own” period, or acquiring an unsubsidized unit, the FCC imposes no greater obligation to eliminate restrictions.

D. Comcast Ordered to Comply With the Internet Four- Freedoms Policy

The apparent lack of any handset attachment freedoms for wireless access juxtaposes with an explicit FCC endorsement of the *Carterfone* policy in 2005 when the Commission articulated four essential “Internet Freedoms” emphasizing nondiscrimination in the manner by which ISPs provide Internet access to end users and the delivery of content.⁵¹ The FCC expects all ISPs, regardless of corporate affiliation and technology, to provide subscribers with the freedom to: 1) access the lawful content of their choice; 2) run applications and services of their choice, subject to the needs of law enforcement; 3) connect their choice of legal devices that do not harm the network; and 4) to benefit from competition among network providers, application and service providers, and content providers.

Even though the FCC did not establish formal and binding rules, the Commission considers its 2005 articulation of Internet Freedoms an enforceable policy. The Commission decided that Comcast violated this policy when the company used network management techniques to throttle or block peer-to-peer (“P2P”) ⁵² transfers even when the company experienced no congestion and could have handled the traffic without imposing delays. By a 3-2 vote, the FCC concluded that Comcast violated the Commission’s 2005 Internet Policy Statement in using software applications to block or

⁵¹ Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Policy Statement, 20 FCC Rcd 14986 (2005); available at: http://www.fcc.gov/wcb/broadband/broadband_topics.html [hereinafter cited as 2005 Internet Policy Statement].

⁵² Peer-to-peer file transfers involves the transfer of content between two or more participants. With the use of software, such as BitTorrent, files can arrive in a timely manner by subdividing content into smaller units that are routed simultaneously via any participating network subscriber.

delay subscriber P2P file transfers.⁵³ Using quite strong, disapproving language, the Commission determined that Comcast unduly interfered with Internet users' right to access the lawful Internet content and to use the applications of their choice:

Although Comcast asserts that its conduct is necessary to ease network congestion, we conclude that the company's discriminatory and arbitrary practice unduly squelches the dynamic benefits of an open and accessible Internet and does not constitute reasonable network management. Moreover, Comcast's failure to disclose the company's practice to its customers has compounded the harm.⁵⁴

Specifically, the Commission found that Comcast had deployed deep packet inspection⁵⁵ equipment throughout its network to monitor the content of its customers' Internet connections and to block specific types of P2P connections such as that facilitated by the use of BitTorrent software.⁵⁶

⁵³ Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications, File No. EB-08-IH-1518, Memorandum Opinion and Order, FCC 08-183 (rel. Aug. 20, 2008); available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-183A1.doc [hereinafter cited as Comcast Internet Order].

⁵⁴ *Id.* at ¶1.

⁵⁵ "Deep packet inspection uses specialized high-speed hardware and software that can identify packets in real-time. A service provider could use deep packet inspection to distinguish peer-to-peer traffic or even just traffic from a single peer-to-peer file-sharing application and either block it or reduce its available bandwidth. Without deep packet inspection, service providers and others could only resort to crude application-level techniques, such as cutting off all streaming video clips using standard formats after a certain time." Kevin Werbach, *Breaking the Ice: Rethinking Telecommunications Law for the Digital Age*, 4 J. TELECOMM. & HIGH TECH. L. 59, 92 (2005).

⁵⁶ "When Comcast judges that there are too many peer-to-peer uploads in a given area, Comcast's equipment terminates some of those connections by sending RST packets. In other words, Comcast determines how it will route some connections based not on their destinations but on their contents; in laymen's terms, Comcast opens its customers' mail because it wants to deliver mail not based on the address or type of stamp on the envelope but on the type of letter contained therein. Furthermore, Comcast's interruption of customers' uploads by definition interferes with Internet users' downloads since 'any end-point that is uploading has a corresponding end-point that is downloading.' Also, because Comcast's method, sending RST packets to both sides of a TCP connection, is the same method computers connected via TCP use to communicate with each other, a customer has no way of knowing when Comcast (rather than its peer) terminates a connection.

Comcast used software to enable the company to masquerade as the recipient of a P2P file transfer sessions and to issue a command to reset, i.e., to stop sending traffic and start again. Comcast forged so-called TCP reset packets⁵⁷ even though it appears that the company could have handled the actually occurring traffic volume without having to degrade anyone's traffic.⁵⁸ The Commission noted that while Comcast initially disclaimed any responsibility for its customers' problems, tests conducted by the Associated Press and Electronic Frontier Foundation suggested that the company selectively interfered with subscribers' file sharing using P2P applications, a user practice that did not violate FCC rules, or Comcast's service terms and conditions. Comcast later acknowledged that it did target its subscribers' P2P traffic for interference and that such interference was not limited to times of network congestion.

This practice is not 'minimally intrusive' but invasive and outright discriminatory." Comcast Internet Order, at ¶¶41-42(citations omitted).

⁵⁷ "When an Internet user opens a webpage, sends an email, or shares a document with a colleague, the user's computer usually establishes a connection with another computer (such as a server or another end user's computer) using, for example, the Transmission Control Protocol (TCP). For certain applications to work properly, that connection must be continuous and reliable. Computers linked via a TCP connection monitor that connection to ensure that packets of data sent from one user to the other over the connection 'arrive in sequence and without error,' at least from the perspective of the receiving computer. If either computer detects that "something seriously wrong has happened within the network," it sends a 'reset packet' or 'RST packet' to the other, signaling that the current connection should be terminated and a new connection established "if reliable communication is to continue." *Id.* at ¶39 (citations omitted).

⁵⁸ "Comcast's practice is overinclusive for at least three independent reasons. First, it can affect customers who are using little bandwidth simply because they are using a disfavored application. Second, it is not employed only during times of the day when congestion is prevalent And third, its equipment does not appear to target only those neighborhoods that have congested nodes — evidence suggests that Comcast has deployed some of its network management equipment several routers (or hops) upstream from its customers, encompassing a broader geographic and system area. With some equipment deployed over a wider geographic or system area, Comcast's technique may impact numerous nodes within its network simultaneously, regardless of whether any particular node is experiencing congestion." *Id.* at ¶48 (citations omitted).

The FCC concluded that Comcast's practices did not constitute legitimate network management, because the practices discriminated against specific applications without regard to whether they actually caused congestion by depleting the Comcast network of sufficient bandwidth:

On its face, Comcast's interference with peer-to-peer protocols appears to contravene the federal policy of "promot[ing] the continued development of the Internet" because that interference impedes consumers from "run[nin]g applications . . . of their choice," rather than those favored by Comcast, and that interference limits consumers' ability "to access the lawful Internet content of their choice," including the video programming made available by vendors like Vuze. Comcast's selective interference also appears to discourage the "development of technologies" — such as peer-to-peer technologies — that "maximize user control over what information is received by individuals . . . who use the Internet" because that interference (again) impedes consumers from "run[nin]g applications . . . of their choice," rather than those favored by Comcast.⁵⁹

The Commission noted that Comcast had an anticompetitive motive to interfere with customers' use of peer-to-peer applications, because such software provides Internet users with a high-quality video access alternative to cable television services. Such video distribution poses a potential competitive threat to Comcast's video-on-demand ("VOD") service. The Commission also concluded that Comcast's practices were not minimally intrusive, as the company claimed, but rather were invasive in that the company substantially impeded subscribers' ability to access the content and to use the applications of their choice.

The Commission also concluded that Comcast exacerbated the situation by failing to disclose its practices to consumers. Because Comcast did not provide its customers with notice of the fact that it interfered with customers' use of P2P applications, customers had no way of knowing when Comcast would interfere with their connections. As a result, the Commission found that many consumers experiencing difficulty using only certain applications would not place blame on Comcast,

⁵⁹ *Id.* at ¶43 (citations omitted).

where it belonged, but rather on the applications themselves, thus further disadvantaging those applications in the competitive marketplace.

Perhaps mindful of the likelihood that Comcast will appeal the FCC's Order the Commission extensively outlined its statutory authority for having substantive jurisdiction over Comcast's Internet-based practices and for reaching an administrative decision without a formal rulemaking before adjudication. The Commission claims to have jurisdiction to resolve disputes regarding discriminatory network management practices based primarily on two statutory mandates: 1) Section 230(b) of the Communications Act of 1934, as amended, where Congress stated that it is the policy of the United States "to preserve the vibrant and competitive free market that presently exists for the Internet" as well as "to promote the continued development of the Internet;" and 2) Section 706(a) of the Act, where Congress directs the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."⁶⁰ Comcast and other parties consider these broad statutory mandates insufficiently specific in light of the requirements the FCC decided to impose on Comcast.

The FCC also stated that in establishing its 2005 Internet Policy Statement the Commission intended to incorporate the Policy Statement's principles "into its ongoing policymaking activities."⁶¹ The FCC noted that contemporaneous with the issuance of its 2005 Internet Policy Statement, the Commission released its Wireline Broadband Order that largely eschewed regulation, but specifically warned that "[s]hould we see evidence that providers of telecommunications for Internet access or IP-

⁶⁰ The Commission also invoked the following statutory provisions as further justification for its decision to assume jurisdiction and to order a remedy: Section 1 of the Communications Act, 47 U.S.C. §151, Section 201, 47 U.S.C. §201, Section 256, 47 U.S.C. §256, Section 257, 47 U.S.C. §257 and Section 601(4), 47 U.S.C. §601(4).

⁶¹ Comcast Internet Order at ¶13 *quoting* 2005 Internet Policy Statement, 20 FCC Rcd. 14988, ¶5.

enabled services are violating these principles, we will not hesitate to take action to address that conduct.”⁶²

The FCC opted to exercise jurisdiction over P2P Internet connections based on the fact that such connections use “communication by wire.”⁶³ With that direct link to the general jurisdictional grant conferred under Title I of the Communications Act, the Commission exercised its ancillary jurisdiction on the premise that Comcast’s practices adversely impacted national Internet policy.

The Commission rejected Comcast’s argument that any regulation of network access and management violates the Commission’s 27 year old policy of leaving information services unregulated:

the Commission previously indicated that it would not hesitate to take action in the event that providers violated the principles set forth in the *Internet Policy Statement*. Moreover, the Commission repeatedly has stated its willingness to exercise the full range of its statutory authority to ensure that providers of cable modem service meet the public interest in a vibrant, competitive market for Internet-related services. For instance, in the *Wireline Broadband Order*, the Commission found that it had jurisdiction over providers of broadband Internet access services and stated that “we will not hesitate to adopt any non-economic regulatory obligations that are necessary to ensure consumer protection and network security and reliability in this dynamically changing broadband era.” Specifically with regard to cable modem service, in the 2002 *Cable Modem Declaratory Ruling* sustained by the Supreme Court in *Brand X*, the Commission sought comment on a wide range of statutory bases for exercising ancillary jurisdiction over cable modem service, including section 230(b) of the Act. The Commission also

⁶² Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities; Universal Service Obligations of Broadband Providers; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review — Review of Computer III and ONA Safeguards and Requirements; Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160(c) with regard to Broadband Services Provided via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided via Fiber to the Premises; Consumer Protection in the Broadband Era, WC Docket No. 04-242, 05-271, CC Docket Nos. 95-20, 98-10, 01-337, 02-33, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14853, ¶96 (2005), *petitions for review denied*, *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007).

⁶³ 47 U.S.C. § 152(a).

explicitly mentioned the blocking or impairing of subscriber access by a cable modem service provider as possible triggers for Commission “intervention.”⁶⁴

While deciding that it should act on a case-by-case basis, the Commission held that it did not have to conduct a rulemaking or hearing to investigate and remedy Comcast’s practices:

And to the extent that Comcast implies that our ancillary authority does not extend to adjudications but rather must first be exercised in a rulemaking proceeding, it is simply wrong. The question of whether the Commission has jurisdiction to decide an issue is entirely separate from the question of how the Commission chooses to address that issue. Perhaps more to the point, the D.C. Circuit has affirmed the Commission’s exercise of ancillary authority in an adjudicatory proceeding and in the absence of regulations before.⁶⁵

The FCC concluded that “Comcast has several available options it could use to manage network traffic without discriminating as it does”⁶⁶ including imposing caps on average users’ capacity and then charging overage fees, throttling back the connection speeds of high-capacity users (rather than any user who relies on P2P technology, no matter how infrequently), and working with the application vendors themselves.

Notwithstanding the fact that Comcast and other ISPs have pursued each of these options, the Commission determined that Comcast had to change its network management practices on a timely

⁶⁴ Comcast Internet Order at ¶39 (citations omitted).

⁶⁵ Comcast Internet Order at ¶38, *citing* CBS, Inc. v. FCC, 629 F.2d 1, 26–27 (1980) (reasoning that the Commission had, in the context of an adjudication, reasonably construed its ancillary authority to encompass television networks), *aff’d*, 453 U.S. 367 (1981); Complaint of Carter-Mondale Presidential Committee, Inc. against The ABC, CBS and NBC Television Networks, Memorandum Opinion and Order, 74 FCC 2d 631, para. 25 n.9 (1979) (“Our power to adjudicate complaints involving requests for access to the networks is surely ‘reasonably ancillary to the effective performance of the Commission’s various responsibilities.’” (quoting *Southwestern Cable Co.*, 392 U.S. at 178)); see also *New York State Comm’n on Cable Television v. FCC*, 749 F.2d 804, 815 (D.C. Cir. 1984) (upholding adjudicatory decision that preempted certain state and local satellite television regulations under Commission’s ancillary authority); *Negrete-Rodriguez v. Mukasey*, 518 F.3d 497, 504 (7th Cir. 2008) (“An agency is not precluded from announcing new principles in an adjudicative proceeding rather than through notice-and-comment rule-making.”).

⁶⁶ Comcast Internet Order at ¶49.

basis and to act with greater transparency.⁶⁷ Within 30 days of release of the Commission's Order

Comcast must:

- Disclose the details of its discriminatory network management practices to the Commission;
- Submit a compliance plan describing how it intends to stop these discriminatory management practices by the end of the year; and
- Disclose to customers and the Commission the network management practices that will replace current practices.⁶⁸

The FCC warned Comcast that if it fails to comply with the steps set forth in the Order, the Commission will impose immediate interim injunctive relief requiring the company to suspend its discriminatory network management practices pending a hearing.⁶⁹

In light of the FCC's grave concern about the potential for cable television ventures to operate in a discriminatory manner in terms of how they provide subscribers with access to the Internet, it comes across as inconsistent and suspect for the Commission to have limited if any concerns about whether wireless carriers can engage in similar tactics. While consumers may have only one cable television venture available in any particular locality, the FCC notes that ample alternative broadband access providers exist ostensibly providing equivalent or more competition than that provided by wireless carriers.⁷⁰ Notwithstanding the apparent ability to change broadband providers in an

⁶⁷ "Comcast's claim that it has always disclosed its network management practices to its customers is simply untrue. Although Comcast's Terms of Use statement may have specified that its broadband Internet access service was subject to 'speed and upstream and downstream rate limitations,' such vague terms are of no practical utility to the average customer." *Id.* at ¶53. "Our overriding aim here is to end Comcast's use of unreasonable network management practices, and our remedy sends the unmistakable message that Comcast's conduct must stop." *Id.* at ¶54.

⁶⁸ *Id.* at ¶54.

⁶⁹ *Id.* at ¶55.

⁷⁰ *See* Federal Communications Commission, Industry Analysis and Technology Division,

ostensibly competitive marketplace, the FCC remains so concerned about Comcast's practices that the Commission was not content to allow market forces to punish Comcast for its practices through customer churn and migration to other carriers.

Depending on one's perspective, wireless carriers operate in a robustly competitive marketplace, or one marked by industry consolidation, concentrated market power, and limited price competition. The FCC believes in the former,⁷¹ but even if one accepts this characterization of the wireless marketplace, competitiveness by itself did not dissuade the Commission from acting to remedy anticompetitive and anti-consumer restrictions on Internet access imposed by a largely unregulated information service provider.

V. Achieving a Level Competitive Playing Field and Serving the Public Interest

A regulatory vacuum currently exists for wireless ICE services. Most NRAs have yet to state explicitly what regulatory requirements wireless carriers incur when they provide both content and conduit for next generation ICE services. For nations predisposed to support marketplace

Wireline Competition Bureau, HIGH-SPEED SERVICES FOR INTERNET ACCESS: STATUS AS OF JUNE 30, 2007 (rel. March 19, 2008) available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-280906A1.doc; Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All American in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, GN Docket No. 07-45, Fifth Report, FCC 08-88, ¶1 (rel. June 12, 2008); available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-88A1.doc; Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriberhip Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscriberhip, WC Docket No. 07-38, Report and Order and Further Notice of Proposed Rulemaking, FCC 08-89 (rel. June 12, 2008); available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-89A1.doc.

⁷¹ See In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, Twelfth Report, FCC 08-28 (rel. Feb 4, 2008); available at: http://wireless.fcc.gov/index.htm?job=cmrs_reports#d36e145.

competition and deregulation wireless carriers appear to have assumed that they can avoid conventional telecommunications regulatory burdens.

In the United States wireless carriers have actively and aggressively limited subscribers' handset flexibility and freedom without punishment.

Rather than wait for a consumer revolt, NRAs should state explicitly that:

- 1) Wireless subscribers have the right to attach any handset that complies with standards designed to protect networks from technical harm; Wireless operators should bear the burden of proving that a particular handset would cause technical harm and therefore should not receive NRA certification;
- 2) Wireless subscribers have the right to use their handsets to access any service, software, application and content available by subscriber imputed commands or instructions. NRAs should expressly state that wireless operators should have an affirmative duty to receive, switch, route and transmit such subscriber keyed commands or instructions; and
- 3) Suppliers of software, applications, services and content accessible via wireless networks have the right to offer them to subscribers subject to a reasonable determination by carriers that such access will not cause technical harm to the carriers' networks. NRAs should reserve the right to mediate and resolve disputes over technical compatibility of any software, applications, services and content accessible via a wireless carrier network.

Additionally NRAs need to exercise vigilance to identify instances of excessive market consolidation. When wireless carriers acquire market share by buying out competitors consumers have fewer opportunity to "vote with their feet" when dissatisfied with service provided by their existing carrier. Already wireless carriers can engage in "consciously parallel" conduct where they offer roughly the same terms and conditions for service. For example, in the United States no carrier offers a discounted rate for existing or prospective customers who already have a handset available and who do not trigger a subsidy by seeking a new phone.

Lastly NRAs need to force wireless carriers to operate in a more transparent and forthright manner regarding the cost of service. Many wireless carriers have managed to insert into consumers' bills surcharges that appear as a tax or other type of compulsory fee. Without the duty to file tariffs and standard service terms and conditions, some wireless carriers can impose unanticipated charges.

When handsets can access a much larger array of ICE services it becomes more essential that wireless carriers fully disclose instances where they offer subscribers superior access to content and preferential access to subscribers for specific content providers. Not all quality of service and price differentials violate a reasonable conceptualization of fairness and neutrality. But on the other hand, the failure to disclose instances of price and quality of service discrimination creates the appearance of impropriety and anticompetitive conduct.

Requiring transparency and fair dealing by carriers providing the underlying transmission capacity for ICE services serves the national interest. Unfortunately the issue of imposing such straightforward requirements has become immersed in a larger debate about how much flexibility ISPs should have to diversify services and what regulator-created incentives are necessary to encourage investment in next generation networks. The so-called network neutrality debate⁷² addresses what

⁷² See Rob Frieden, *Internet 3.0: Identifying Problems and Solutions to the Network Neutrality Debate*, 1 INT'L J. OF COMM., 461 (2007); available at: <http://ijoc.org/ojs/index.php/ijoc/article/view/160/86>; Rob Frieden, *Network Neutrality or Bias?--Handicapping the Odds for a Tiered and Branded Internet*, 29 HASTINGS COMM. & ENT. L.J. No. 2, 171-216 (2007); Brett Frischmann & Barbara van Schewick, *Yoo's Frame and What It Ignores: Network Neutrality and the Economics of an Information Superhighway*, 47 JURIMETRICS J. (forthcoming 2007); Barbara van Schewick, *Towards an Economic Framework for Network Neutrality Regulation*, 5 J. ON TELECOMM. & HIGH TECH. L. (forthcoming 2007); Barbara A. Cherry, *Misusing Network Neutrality to Eliminate Common Carriage Threatens Free Speech and the Postal System*, 33 N. KY. L. REV. 483 (2006); Bill D. Herman, *Opening Bottlenecks: On Behalf Of Mandated Network Neutrality*, 59 FED. COMM. L.J. 103 (Dec., 2006); Craig McTaggart, *Was The Internet Ever Neutral?*, paper presented at the 34th Research Conference on Communication, Information and Internet Policy, George Mason University School of Law, Arlington, Virginia (rev. Sep. 30, 2006); available at: <http://web.si.umich.edu/tprc/papers/2006/593/mctaggart-tprc06rev.pdf>; Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOM & HIGH TECH L. 141 (2005); available at: <http://ssrn.com/abstract=388863>; J. Gregory Sidak, *A Consumer-Welfare Approach to Network Neutrality Regulation of the Internet*, 2 J. COMP. L. & ECON. No. 3, 349 (2006); Christopher S. Yoo, *Network Neutrality and the Economics of Congestion*, 94 GEO. L.J. 1847 (June, 2006); Adam Thierer, *Are 'Dumb Pipe' Mandates Smart Public Policy? Vertical Integration, Net Neutrality, and the Network Layers Model*, 3 J. Telecomm. & High Tech. L. 275 (2005); Christopher S. Yoo, *Beyond Network Neutrality*, 19 HARVARD J. L. & TECH. (Fall 2005); Christopher S. Yoo, *Would Mandating Broadband Network Neutrality Help or Hurt Competition? A Comment on the End-to-End Debate*, 3 J. ON TELECOMM. & HIGH TECH. L. 23 (2004). Mark A. Lemley and Lawrence Lessig, *The End*

constitutes lawful price and service discrimination by ISPs, but opponents have managed to frame the debate as an unlawful attempt to impose common carrier responsibilities. While ISPs do not operate as telecommunications common carriers, wireless radiotelephone companies typically do in addition to their information and video programming delivery services. NRAs have lawful authority to impose network neutrality obligations on wireless carriers in the carriers' capacity as telecommunications service providers.

NRAs face a regulatory quandary when wireless carriers augment telecommunications with new ICE services. The carriers want to leverage these new services as grounds for elimination of just about any government oversight, particularly in light of the apparent inability of NRAs to subject a single enterprise to more than one regulatory regime. However, the onset of new services, which may qualify for classification as something other than a common carriage telecommunications service, does not by itself vitiate or justify elimination of the initial regulatory requirements. NRAs and wireless carriers will need to learn how to operate in an environment where two or more regulatory regimes apply when handsets offer an amalgam of telecommunications, information, and video services.