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Washington, DC 20541  
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April 19, 2006

**VIA COURIER**

Federal Communications Commission  
Media Bureau  
P.O. Box 358205  
Pittsburgh, PA 15251-5205

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Federal Communications Commission  
Office of the Secretary

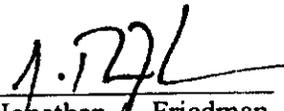
**Re: In the Matter of Application of Comcast Corporation's Request for Waiver of 47 C.F.R. § 76.1204(a)(1).**

Dear Sir or Madam:

On behalf of Comcast Corporation, we hereby transmit an original and four (4) copies of the above-referenced Request for Waiver. Also transmitted herewith are a completed FCC Form 159 and a check in the amount of one thousand one hundred and sixty dollars (\$1,160) to cover the required filing fee.

Please call us if you have any questions regarding this matter.

Sincerely,

  
Jonathan A. Friedman

cc: Donna Gregg, Media Bureau Chief  
Bill Johnson  
Deborah Klein  
Steve Broeckaert  
Natalie Roisman  
John Wong  
Mike Lance  
Andrew Long

BEFORE THE  
**Federal Communications Commission**  
WASHINGTON, D.C.

In the Matter of )  
 )  
Comcast Corporation's ) CSR- \_\_\_\_\_  
Request for Waiver of )  
47 C.F.R. § 76.1204(a)(1) )

**REQUEST FOR WAIVER**

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April 19, 2006

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## SUMMARY

Under rules currently scheduled to go into effect on July 1, 2007, multichannel video programming distributors ("MVPDs") are prohibited from placing in service "navigation devices," including set-top boxes, that combine conditional access and other functions in a single integrated device. Comcast respectfully requests that the Commission waive this prohibition (which is generally known as the "integration ban") for certain low-cost, limited-capability digital set-top boxes described herein. These simple devices enable consumers who own conventional analog televisions to receive programming that is transmitted digitally over a cable system and to access interactive program guides, parental controls, and video-on-demand ("VOD"), but they lack digital video recording ("DVR"), high-definition ("HD") output, broadband Internet access, multiple tuner, or other similar capabilities.

The Commission specifically indicated in its March 17, 2005 order deferring the integration ban that it would entertain waiver requests for such low-cost, limited-capability set-top boxes. This waiver request falls squarely within the Commission's statements in this regard and is also permissible under the Commission's rules. Comcast requests that the waiver request be approved as expeditiously as possible so that Comcast can avoid incurring unnecessary costs, and delaying consumer benefits, that would result from uncertainty as to the application of the integration ban to such equipment.

Commission approval of the requested waiver will advance important public interest benefits. Those benefits include, among other things: broadening consumers' access to family and ethnic tiers of programming; expanding the availability and use of parental controls; increasing the number of subscribers who experience digital picture quality; enhancing subscriber access to VOD, including niche, ethnic, and local programming; and facilitating the

digital transition. In addition, as deployment of these and other digital set-top boxes becomes sufficiently widespread, Comcast and other MSOs will have the ability to free up precious bandwidth for delivery of more programming, including HD programming, and other services that benefit consumers.

Approving the waiver will not adversely affect consumer electronics ("CE") manufacturers or retailers. Notably, all of the cable systems in which Comcast has deployed or will deploy these low-cost, limited-capability set-top boxes do and will continue to support CableCARD-enabled equipment. Consequently, subscribers are free to purchase such cable-ready equipment at retail, and Comcast will continue to provide them with CableCARDS and appropriate technical support. In addition, CableCARD-enabled devices (which tend to be HDTVs or, potentially, advanced DVRs) serve a very different consumer need than do the set-top boxes covered by this waiver request. As the Commission has pointed out, advanced devices -- whether leased from the cable operator or purchased at retail -- would rely on separable security under the integration ban. Furthermore, CE manufacturers continue to demonstrate that they are fully capable of developing innovative consumer electronics products for retail with or without the Commission's rules for navigation devices.

Denying the waiver would slow Comcast's transition to an all-digital platform and harm consumers. For example, if the devices at issue here were required to be re-engineered to include a CableCARD and host interface, this would substantially increase the cost of the boxes to Comcast -- by 50 percent or more -- which, of course, would raise consumer prices for no perceivable benefit. As a result, if the Commission were to deny the waiver, Comcast would have to pursue more expensive equipment options, and as a direct result fewer Comcast customers would have access to digital programming and services and Comcast's recapture of

analog spectrum for HD and other services would be delayed. Denial of the waiver would also require Comcast and its cable equipment manufacturers to divert resources away from developing and deploying downloadable security, which provides significant benefits to CE manufacturers and retailers, cable operators, and especially consumers.

The Commission has previously granted waivers of its cable equipment rules where approval of the waiver has such clear public interest benefits and failure to grant the waiver would cause clear public interest harms. The Commission should pursue a similar approach here.

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In the Matter of )  
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Request for Waiver of )  
47 C.F.R. § 76.1204(a)(1) )  
  
To: Chief, Media Bureau

**REQUEST FOR WAIVER**

Pursuant to Sections 1.3, 76.7 and 76.1207 of the Commission's rules and Section 629(c) of the Communications Act,<sup>1</sup> Comcast Corporation ("Comcast") respectfully requests a waiver of the Commission's integration ban as applied to the specific low-cost, limited-capability set-top boxes described herein and similar boxes meeting specified criteria.<sup>2</sup> Approval of the requested waiver is plainly in the public interest.

**I. THE COMMISSION MAY APPROPRIATELY CONSIDER WAIVERS OF THE INTEGRATION BAN.**

Under 47 C.F.R. §§ 1.3 and 76.7 and well-established precedent, the Commission may waive (or grant other "special relief" from) any provision of its rules relating to cable television

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<sup>1</sup> See 47 C.F.R. §§ 1.3, 76.7(i), & 76.1207. See also 47 U.S.C. § 549(c).

<sup>2</sup> The integration ban is set forth in Section 76.1204(a)(1) of the Commission's rules. See 47 C.F.R. § 76.1204(a)(1) ("Commencing on July 1, 2007, no multichannel video programming distributor subject to this section shall place in service new navigation devices for sale, lease, or use that perform both conditional access and other functions in a single integrated device.").

systems if it determines that "the public interest would be served" by doing so.<sup>3</sup> In addition, under Section 629(c) of the Communications Act,<sup>4</sup> the Commission has a duty to grant waivers of its navigation device rules so as to facilitate the deployment of new or improved cable services:

The Commission shall waive a regulation adopted under subsection [629](a) for a limited time upon an appropriate showing by a provider of multichannel video programming and other services offered over multichannel video programming systems, or an equipment provider, that such waiver is 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.<sup>5</sup>

Accordingly, Section 76.1207 of the Commission's implementing rules for navigation devices includes a provision allowing for waivers of its cable equipment rules,<sup>6</sup> and the Commission has already granted at least one such waiver.<sup>7</sup>

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<sup>3</sup> *Id.* § 76.7(i) ("The Commission, after consideration of the pleadings, may determine whether the public interest would be served by the grant, in whole or in part, or denial of the request . . ."). *See also id.* § 1.3 ("Any provision of the rules may be waived by the Commission on its own motion or on petition if good cause therefor is shown."). *See also WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) ("[A] general rule, deemed valid because its overall objectives are in the public interest, may not be in the 'public interest' if extended to an applicant who proposes a new service that will not undermine the policy, served by the rule, that has been adjudged in the public interest."); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

<sup>4</sup> *See* 47 U.S.C. § 549(c).

<sup>5</sup> *Id.* *See also* 47 C.F.R. § 76.1207 ("The Commission may waive a regulation adopted under this subpart for a limited time, upon an appropriate showing by a provider of multichannel video programming and other services offered over multichannel video programming systems, or an equipment provider that such a waiver is 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. Such waiver requests should be made pursuant to Sec. 76.7. Such a waiver shall be effective for all service providers and products in the category in which the waiver is granted.")

<sup>6</sup> *See* 47 C.F.R. § 76.1207.

<sup>7</sup> *See, e.g., In the Matter of BellSouth Interactive Media Services, LLC: Petition for Permanent Relief*, 19 FCC Rcd. 15607 (2004) ("BellSouth Waiver Order") (granting BellSouth permanent waiver of Commission's plug-and-play rules in certain cable systems pursuant to Section 629(c) of the Communications Act).

A waiver of the integration ban for low-cost, limited-capability set-top boxes clearly satisfies the general standards of Sections 1.3 and 76.7 of the Commission's rules, as well as the special waiver provision in Section 629(c) of the Communications Act and Section 76.1207 of the Commission's rules. First, the requested waiver meets the Commission's public interest standard. Although broader relief from the integration ban could readily be justified,<sup>8</sup> the waiver requested here would apply only to the types of low-cost, limited-capability devices the Commission has already determined will qualify for waiver of the integration ban.<sup>9</sup> As detailed below, the waiver will provide significant consumer benefits, will have no adverse effects on retail cable-ready equipment, and is consistent with Commission precedent regarding set-top box equipment. Second, consistent with the waiver standard in Section 629(c) of the statute and Section 76.1207 of the Commission's rules, grant of the waiver is "necessary to assist the development or introduction of a new or improved multichannel video programming or other service." In particular, the waiver will enable more consumers to enjoy digital picture quality and to access the newly developed family tiers, powerful parental controls, digital broadcast programming, and the diverse array of programming offered via VOD both by expanding the number of Comcast households that will have access to digital set-top boxes and by increasing the numbers of television sets that are connected to digital set-top boxes.

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<sup>8</sup> It is not the purpose of this waiver request to argue the case for more extensive relief from the integration ban. But submission of this limited request should not foreclose any subsequent request -- by Comcast or anyone else -- for such broader relief.

<sup>9</sup> See *In the Matter of Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 20 FCC Rcd. 6794 ¶ 37 (2005) ("2005 Deferral Order").

**II. THIS WAIVER REQUEST IS LIMITED TO LOW-COST, LIMITED-CAPABILITY DEVICES.**

The Commission has directed that any requests for waiver of the integration ban should "include the full specifications for any device(s) for which waiver is sought."<sup>10</sup> This waiver request covers the DCT-700, Explorer-940, and Pace Chicago set-top boxes, each of which is described below (and with additional specifications attached) as well as set-top boxes that share similar characteristics with these devices.

DCT-700. Comcast currently deploys a low-cost, limited-capability set-top box -- the Motorola DCT-700 -- in its cable systems that utilize Motorola's conditional access technology.<sup>11</sup> The DCT-700 is a set-top box that is aimed squarely at enabling cable customers with analog TVs to access programming services, and associated features, that are delivered digitally. As detailed in the attached specifications, the DCT-700 includes a single digital tuner, two analog video outputs (RF and composite), and right and left audio channel outputs.<sup>12</sup> The DCT-700 enables consumers to access an electronic program guide ("EPG"), pay-per-view ("PPV") services, VOD, and limited interactive television ("ITV") capabilities. It also supports closed captioning, parental controls, Macrovision copy protection, and emergency alert messages, among other things. The device does not include DVR or broadband Internet access capability; does not tune multiple channels of video programming (e.g., picture-in-picture

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<sup>10</sup> See *id.*

<sup>11</sup> Motorola's conditional access technology is used in approximately 90% of Comcast's cable systems today, and will be used in approximately 70% of Comcast's cable systems after the pending Adelphia-Comcast-Time Warner transactions are consummated.

<sup>12</sup> See Exhibit A (Specifications for DCT-700).

tuning); and does not produce an HD output. While not critical to this waiver request, it also lacks an analog tuner and is incapable of accessing analog channels.

The DCT-700 has been very popular with Comcast customers thus far. Comcast has already purchased approximately 1 million DCT-700s and plans to buy 1-1.5 million more devices this year. These boxes have been or will be deployed in cable systems where Comcast is "simulcasting," that is, delivering digitally the same programming services (typically those on the "basic" and "enhanced basic" tiers) that are also delivered in analog. Approximately 75 percent of Comcast cable systems now support simulcast service,<sup>13</sup> and that percentage is growing. Comcast customers in these simulcast systems can use the DCT-700 to buy any tier of programming service, as well as the interactive services referenced above, but these boxes cannot be used to output HD signals, store recorded programs, or access the Internet.

Explorer-940. The Explorer-940 is a low-cost, limited-capability set-top box that will serve precisely the same function as the DCT-700, except that it will be deployed in cable systems that utilize Scientific-Atlanta's conditional access technology. The Explorer-940 is currently in development, and Comcast expects to begin deploying the box later this year.<sup>14</sup> As with the DCT-700, the Explorer-940 will support EPG, PPV, VOD, and limited ITV capabilities, as well as closed captioning, parental controls, Macrovision copy protection, and emergency alert messages, among other things, but not DVR, HD output, broadband Internet access,

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<sup>13</sup> See Thomson StreetEvents, *Q42005 Comcast Corporation Earnings Conference Call Transcript*, at 2 (Feb. 2, 2006) (quoting Comcast Chairman and CEO Brian Roberts).

<sup>14</sup> Scientific-Atlanta anticipates that the Explorer-940 will be available for deployment in July 2006.

multiple tuner, or similar advanced capabilities.<sup>15</sup> The Explorer-940 also does not include an analog tuner.

Pace Chicago. The Pace Chicago set-top boxes are low-cost, limited-capability boxes developed by Pace to serve essentially the same functions as the two boxes just described, but can be deployed in cable systems utilizing either Motorola or Scientific-Atlanta headend equipment. These boxes can be used to expand consumer access to parental controls, family tiers, and VOD.<sup>16</sup> They also include an optional USB port<sup>17</sup> and DSG signaling capability.<sup>18</sup> Like the DCT-700 and Explorer-940, the Pace Chicago boxes cannot be used to record programming, output HD signals, tune multiple channels of video programming, or access the Internet, nor do they include an analog tuner.

A version of the Pace Chicago set-top box is currently deployed in Canada. Pace has two versions of the set-top box for the U.S. market: the DC-501P, for cable systems utilizing Scientific-Atlanta headend equipment; and the DC-505D, for cable systems using Motorola conditional access technology. The DC-501P is available for deployment today; the DC-505D is

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<sup>15</sup> See Exhibit B (Specifications for Explorer-940). The Explorer-940 will also include an optional S-Video output in addition to the standard RF and composite outputs and has the capability to be used as a "client" device (but not a "server" device) in a home network with other Scientific-Atlanta set-top boxes.

<sup>16</sup> See Exhibit C (Specifications for DC-501P and DC-505D).

<sup>17</sup> There is no current planned use for the USB port. However, as home-networking technology develops, the USB port might be used at some future time to facilitate the networking of audio and video content within the home. For example, video programming might be delivered from a (server) DVR-enabled set-top box in the living room to (client) Pace Chicago boxes in other rooms via the USB port.

<sup>18</sup> Pace Chicago set-top boxes can utilize conventional out-of-band signaling methods (*i.e.*, DAVIC in Scientific-Atlanta systems and Aloha in Motorola systems) for the delivery of program guide data, initiation of VOD sessions, or communication of other information between the set-top box and the cable headend. They are also capable of using DOCSIS (or a subset of DOCSIS known as DSG) for these functions. However, DOCSIS cannot be used in these devices to tune in-band video programming or to access the Internet.

in development and could be deployed later this year. The instant waiver request covers both versions of the Pace Chicago set-top box.

\* \* \* \*

Comcast asks that the requested waiver cover the DCT-700, Explorer-940, and Pace Chicago set-top boxes and replacement versions of these devices. Comcast also requests that the waiver accommodate the natural evolution of these set-top boxes to include new features and functions, but for present purposes Comcast does not request that the waiver encompass set-top boxes that have a hard drive, output HD signals, tune multiple channels of video programming, provide broadband Internet access, or include similar capabilities. In addition, Comcast requests that the waiver encompass any other digital set-top boxes that share the same characteristics as the DCT-700, Explorer-940, or Pace Chicago set-top boxes.

Clarifying that the waiver covers all such devices would avoid the time, expense, and uncertainty for Comcast, and the corresponding burden on the Commission, that would result if separate waivers were needed for every comparable individual device placed in service by Comcast. Furthermore, grant of the waiver under these terms fulfills the directive in Section 76.1207 of the Commission's rules that: "Such a waiver shall be effective for all service providers and products in the category in which the waiver is granted."<sup>19</sup>

Comcast asks that the Commission act promptly on this waiver request. At present, the Commission's integration ban is scheduled to become effective in less than 15 months. Absent a

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<sup>19</sup> 47 C.F.R. § 76.1207. *See also* 47 U.S.C. § 549(c) (providing that "such waiver shall be effective for all service providers and products in that category and for all providers of services and products"). To the extent the Commission decides to limit the scope of the waiver to the DCT-700, Explorer-940, and Pace Chicago set-top boxes (as opposed to all comparable devices), Comcast urges the Commission to establish a streamlined process for considering subsequent waiver requests for other low-cost, limited-capability devices.

change in that schedule, the requested waiver is essential to permit Comcast to continue to deploy these low-cost, limited-capability set-top boxes, instead of pursuing other, more costly *set-top box options that will harm consumers and industry in various ways*. Ruling on the instant waiver request in an expeditious matter would also satisfy the requirement in Section 629(c) that, upon an appropriate showing, “the Commission shall grant any such waiver request within 90 days of any application filed under this subsection.”<sup>20</sup>

### **III. WAIVING THE INTEGRATION BAN FOR LOW-COST, LIMITED-CAPABILITY DEVICES WILL SERVE THE PUBLIC INTEREST.**

#### **A. The Waiver Request Is Consistent With Commission Statements On How Low-Cost, Limited-Capability Boxes Should Be Treated Under The Integration Ban.**

In its most recent ruling on the integration ban, the Commission underscored its intention to consider whether low-cost, limited-capability set-top boxes “should be subject to the integration ban or whether cable operators should be permitted to offer such low-cost, limited capability boxes on an integrated basis.”<sup>21</sup> Pending any such determination, the Commission specifically stated that it “will entertain requests for waiver of the prohibition on integrated devices for limited capability integrated digital cable boxes.”<sup>22</sup> Moreover, in defending its refusal to eliminate the integration ban, the Commission recently told the D.C. Circuit that it had “promised to mitigate the potential short-term cost burdens of the integration ban by entertaining requests for waiver of the ban with respect to certain ‘low-cost, limited capability boxes.’”<sup>23</sup> The

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<sup>20</sup> 47 U.S.C. § 549(c).

<sup>21</sup> See 2005 Deferral Order ¶ 37.

<sup>22</sup> *Id.*

Commission also told the D.C. Circuit that it already “determined” that waivers for such devices will have pro-consumer benefits.<sup>24</sup>

This waiver request applies to precisely such devices. They are “inexpensive” digital set-top boxes “that will permit the viewing of digital programming on analog television sets.”<sup>25</sup> Likewise, they are limited capability devices -- with a few analog outputs and basic interactive functionality -- but include none of the functionalities as to which the Commission has not yet expressed its willingness to grant a waiver.<sup>26</sup> None of them supports output of HD signals. None of them has the hard drive necessary to supply DVR capability. None of them is designed to be used for broadband Internet access. None of them enables tuning of multiple channels of video programming. Thus, each of these devices has significantly less functionality than the high-end digital set-top boxes Comcast currently leases (*e.g.*, HD/DVRs) or the interactive CableCARD-enabled digital television sets being developed by Samsung, LG, and other CE manufacturers.

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(...footnote continued)

<sup>23</sup> See Brief for Respondents at 14, *Charter Comm. Inc. and Advance/Newhouse Comm. v. FCC*, No. 05-1237 (D.C. Cir. Mar. 7, 2006) (“FCC Brief”).

<sup>24</sup> See *id.* at 30 (“Similarly, recognizing the value of preserving a low-cost set-top box option for consumers, at least until volume usage of CableCARDS over time reduced the price of host devices, the Commission undertook to consider waivers of the integration ban with respect to limited capability set-top boxes (*e.g.*, boxes that do not contain capability for recording, display of high-definition programming, or broadband Internet access). The Commission determined that waivers for such boxes would benefit those cable subscribers most concerned about the cost of equipment, while maintaining the overall benefits of the integration ban with respect to boxes with more advanced capabilities (and therefore more likely to be the subject of a competitive market)[.]” (citations omitted)).

<sup>25</sup> 2005 *Deferral Order* ¶ 37. All of the devices discussed here are expected to cost \$100 or less in volume. By contrast, full-function set-top boxes cost multiple hundreds of dollars each, even in significant volumes.

<sup>26</sup> *Id.* (in this regard, the *Deferral Order* alluded to “personal video recording (“PVR”), high-definition, broadband Internet access, multiple tuner, or other similar advanced capabilities.”).

**B. Approval Of The Waiver Request Will Accelerate Consumer Adoption Of Digital Services.**

In inviting cable operators to seek waivers for low-cost, limited-capability set-top boxes, the Commission highlighted the importance of expanding consumer access to digital programming and services.<sup>27</sup> Grant of the waiver will advance that objective. As noted, Comcast aims to purchase between 1 million and 1.5 million DCT-700s this year. Comcast expects to purchase comparable numbers of these devices (whether the DCT-700, Explorer-940, or Pace Chicago set-top boxes) in subsequent years if the instant waiver is granted. Comcast anticipates that deployment of these low-cost, limited-capability devices will significantly increase customer use and enjoyment of digital services. Today, Comcast has approximately 9.5 million digital customers, or 45.6 percent of its total subscribers.<sup>28</sup> Comcast is aiming to push that penetration figure to over 75 percent by the end of the decade. These devices are also a cost-effective solution for delivering digital cable services to analog televisions in digital households that lack digital set-top boxes. The digital and programming services detailed below can be provided at limited cost to any analog television in the home using these devices.

Approval of the waiver will afford millions more Comcast customers access to a wide array of digital programming and services and in more locations in the home.<sup>29</sup> Customers would have the ability to subscribe to Comcast's digital basic service -- with hundreds of

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<sup>27</sup> See *id.*

<sup>28</sup> See *Comcast Reports Fourth Quarter 2005 Results, Comcast Earnings Statement* (Feb. 2, 2006), available at <http://www.cmcsk.com/phoenix.zhtml?c=118591&p=irol-newsArticle&ID=811814&highlight=>.

<sup>29</sup> Even in households that have digital service, there are often second, third, or fourth TVs that are not connected to a digital set-top box. This waiver request will facilitate the deployment of additional digital set-top boxes, thereby expanding the ability of families to access family tiers, parental controls, etc. throughout the home.

broadcast and non-broadcast programming services, as well as dozens of music audio channels.<sup>30</sup> Subscribers could also buy special tiers of service. For example, Comcast has announced a Family Tier, with an average of 35-40 channels, including such family-friendly programming networks as PBS Kids Sprout, Disney Channel, Toon Disney, Nickelodeon, and Discovery Kids.<sup>31</sup> This service will soon be available across most of Comcast's "footprint," but to access it consumers will need a digital set-top box -- ideally including the low-cost, limited-capability ones for which this waiver is sought. Likewise, Comcast makes available to digital customers other specialty tiers of service, such as Spanish-language<sup>32</sup> and sports-related tiers,<sup>33</sup> but -- again -- digital set-top boxes are required. The economics of expanding digital subscribership will be vastly improved -- for both Comcast and its customers -- if low-cost, limited-capability set-top boxes can be used.

Grant of the waiver will also enable more Comcast customers to use powerful digital parental control technologies in television sets throughout the home. Comcast's digital set-top boxes provide an easy user interface for parents to limit the programming the family watches, including the ability to block programs by title, by TV or MPAA ratings, by channel, and (for many systems) by time of day. Parents can also hide titles of certain shows.<sup>34</sup> As noted,

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<sup>30</sup> See, e.g., <http://www.comcast.com/Support/ChannelGuide.ashx?LocResult&Zip=22301> (channel line-up for Comcast's digital cable system in Alexandria, Virginia).

<sup>31</sup> See *Comcast Announces Family Tier*, Comcast Press Release (Dec. 22, 2005), available at <http://phx.corporate-ir.net/phoenix.zhtml?c=147565&p=irol-newsArticle&ID=798663&highlight=>.

<sup>32</sup> See George Winslow, *Sizing Up Operator Strategies*, Multichannel News (Oct. 17, 2005) (describing Comcast's Spanish-language service tiers).

<sup>33</sup> See <http://www.comcast.com/sports1/sportstier.html> (detailing Comcast's digital sports tier).

<sup>34</sup> Comcast has established a dedicated hotline to help parents with Comcast's parental control tools. Parents can call 866-781-1888 toll free between 9 a.m. and 11 p.m. EST to speak with a trained representative. Over 35,000  
(footnote continued...)

Comcast anticipates deploying several million more low-cost, limited-capability boxes if the waiver is granted. This means that many more families will have access to these parental control capabilities or may be able to use them in connection with a larger number of analog television sets.

Approval of the waiver will provide other consumer benefits, as well. Depending on the level of service to which they subscribe, Comcast customers using the boxes under discussion here will be able to use an interactive program guide and subscribe to other basic interactive services, such as PPV programming, VOD, and certain limited ITV applications. VOD offerings include, among many others, Urban Beat programming for African-American audiences, Gratis en Espanol for Spanish-speaking audiences, and Get Local, which provides news, public affairs, election information and other information important to an informed citizenry.<sup>35</sup> Furthermore, since these low-cost, limited-capability set-top boxes will be deployed in Comcast cable systems that have implemented digital simulcasting, subscribers using these devices will continue to be able to enjoy digital picture quality.

Grant of the waiver will also accelerate the transition to digital television. In fact, the Commission concluded that consumer access to inexpensive digital set-top boxes "is critical to

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(...footnote continued)

calls have been handled regarding parental controls since the hotline's inception last year. In addition, Comcast has taken the lead in the cable industry in launching various consumer awareness initiatives, including initial notifications to subscribers and periodic bill stuffers all highlighting the availability of parental controls. Comcast has also telecast over 1.6 million public service announcements on parental controls. See Testimony of David L. Cohen, Executive Vice President, Comcast Corporation, before the Senate Commerce Committee (Jan. 19, 2006).

<sup>35</sup> See Comcast Corp., *On Demand* (listing programming from popular linear networks and industry leaders, such as HBO, Nickelodeon, Discovery Networks (including Discovery Kids, Animal Planet, and TLC), MTV, Comedy Central, Boomerang, BBC America, CNN, A&E, Food Network, HGTV, ESPN, NFL Network, NBA On Demand, The Travel Channel, and Gratis en Español), at <http://comcast.m0.net/m/p/com/mic/Index.asp?email=&cmp=&custom=> (last visited Aug. 8, 2005). See also Comcast Comments, filed in MB Dkt. 05-255, at 48-52 (Sept. 19, 2005) (detailing Comcast's VOD offerings).

the DTV transition.”<sup>36</sup> With respect to Comcast’s cable systems, deployment of the low-cost, limited-capability set-top boxes will aid the migration of Comcast’s cable systems to all-digital networks. As the Commission emphasized in its *2005 Deferral Order*, transitioning to an all-digital platform will enable cable operators to “free[] up spectrum and increas[e] service offerings such as high-definition television.”<sup>37</sup> As noted, today 45.6 percent of Comcast subscribers are digital customers. Over time, as more digital set-top boxes are deployed and the number of digital subscribers increases, Comcast will have the ability to reclaim analog spectrum for HD and VOD, as well as faster Internet access and other valuable services.<sup>38</sup> The ultimate objective, of course, is to reclaim all of that spectrum for other uses.

With increased digital penetration and accelerated migration to an all-digital network, Comcast will be able to provide more and better digital services to consumers. In addition, this will enable cable companies to compete more effectively against DBS and other all-digital MVPD platforms.<sup>39</sup> As the Commission has noted, the benefits of such increased competition to

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<sup>36</sup> *2005 Deferral Order* ¶ 37.

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

<sup>38</sup> DOCSIS 3.0 will allow cable Internet to reach speeds of 50 Mbps, 100 Mbps, or even more, as the transmission capacity of different channels is combined through “channel bonding.” But, in the first instance, what is essential is to have freed up channels by reducing the bandwidth allocated to linear video transmission.

<sup>39</sup> DBS companies provide “all-digital” services to their customers. And, although the relevant statutory provision applies equally to all MVPDs, neither DIRECTV nor EchoStar needs the Commission’s permission to deploy any kind of set-top box, nor does either have the obligation to support or provide separable security, like CableCARDS.

consumers are manifold, including “increased choice, better services, higher quality, and greater technological innovation.”<sup>40</sup>

Furthermore, deployment of the low-cost, limited-capability devices may also assist the transition of digital broadcast stations to digital service. Once analog broadcasting is terminated in February 2009, households that have relied on analog broadcasting (as well as analog TVs that are in cable households but are not currently connected to the cable service) will need to be connected either to a digital over-the-air receiver that also performs digital-to-analog conversion or to a cable system. To the extent those TVs can be connected to the cable system by way of a low-cost, limited-capability digital set-top box, consumers will enjoy not only the continued ability to use their analog TVs<sup>41</sup> but also the new ability to view a wider array of programs and to access VOD, parental controls, and family tiers. The waiver requested here will clearly help Comcast to deliver these benefits to consumers.

**C. Grant Of The Waiver Request Will Have No Adverse Effects On CE Manufacturers Or Retailers.**

As the Commission correctly determined in its *2005 Deferral Order*, exempting low-cost, limited-capability set-top boxes from the integration ban “will not endanger the development of the competitive marketplace” for cable-ready equipment.<sup>42</sup> All of the cable systems in which Comcast has deployed or will deploy these low-cost, limited-capability set-top boxes already

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<sup>40</sup> See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Eleventh Annual Report, 20 FCC Rcd. 2755 ¶ 4 (2005). See also *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Tenth Annual Report, 19 FCC Rcd. 1606 ¶ 4 (2004) (same).

<sup>41</sup> The Commission underscored the importance of this issue in its *2005 Deferral Order*: “It is critical to the DTV transition that consumers have access to inexpensive digital set-top boxes that will permit the viewing of digital programming on analog television sets both during and after the transition.” *2005 Deferral Order* ¶ 37.

<sup>42</sup> See *id.*

support CableCARD-enabled equipment. Consequently, subscribers are free to purchase such cable-ready equipment at retail, and Comcast is required to provide them with CableCARDS.<sup>43</sup>

Furthermore, CableCARD-enabled equipment serves a very different consumer need than do the devices covered by the waiver request. Over twenty consumer electronics manufacturers have had approximately 400 models of CableCARD-enabled digital cable ready products certified or verified for production, and almost all of those devices are HDTVs or HD/DVRs.<sup>44</sup> In short, CE manufacturers are focusing their CableCARD-related efforts on higher-end products for the retail market. They have, in contrast, demonstrated virtually no interest in producing set-top boxes for retail.<sup>45</sup> Consumers who want these CableCARD-enabled retail HDTVs and HD/DVRs will presumably want the advanced functions they offer, not the limited-capability set-top boxes covered by this waiver request.

Moreover, this waiver will not affect competition between the retail CableCARD-enabled advanced devices discussed above and the high-end set-top boxes Comcast leases to customers,

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<sup>43</sup> See 47 C.F.R. § 76.1204(a)(1). Since CableCARD-enabled products were launched in the late summer of 2004, Comcast has deployed over 60,000 CableCARDS in its cable systems. The cable industry as a whole had deployed over 141,000 CableCARDS by the end of March 2006. See NCTA CableCARD Report, filed in CS Dkt. No. 97-80, at 1 (Mar. 30, 2006).

<sup>44</sup> See NCTA CableCARD Report at 1. See also CableLabs, *Certified, Verified, and Self-Verified Cable Products (04/03/06)*, available at [http://www.cablelabs.com/lib/img/nav/certified\\_pnp.gif](http://www.cablelabs.com/lib/img/nav/certified_pnp.gif). The cable industry has also developed specifications that enable consumer electronics manufacturers to build two-way cable-ready products (i.e., devices that can access interactive program guides, video-on-demand, and other two-way cable services without the need for a set-top box). Already, Samsung has produced a two-way HDTV under this initiative that has been tested and certified by CableLabs. See *Samsung Electronics Gains CableLabs Certification on 2-Way Digital Television*, CableLabs Press Release (Aug. 23, 2005), available at [http://www.cablelabs.com/news/pr/2005/05\\_pr\\_samsung\\_082405.html](http://www.cablelabs.com/news/pr/2005/05_pr_samsung_082405.html). LG Electronics and Panasonic are also developing two-way products under this CableLabs' initiative. See *Cable Television Industry Voices Support for OCAP and Two-Way Digital Cable-Ready Product Deployments*, CableLabs Press Release (Jan. 5, 2006), available at [http://www.cablelabs.com/news/pr/2006/06\\_pr\\_ocap\\_ces\\_010506.html](http://www.cablelabs.com/news/pr/2006/06_pr_ocap_ces_010506.html).

<sup>45</sup> CE interest in set-top boxes for the retail market has focused exclusively on set-top boxes with DVR capability, not the limited-capability set-top boxes that are subject of the instant waiver request.

such as those with HD/DVR capabilities. Under the integration ban, those leased devices would have to rely on separable security just like equipment offered at retail, whether that security were delivered via a CableCARD or downloadable security.<sup>46</sup> Indeed, the Commission underscored this very fact in concluding that granting the type of waiver that Comcast requests would not impair competition in the marketplace for cable equipment:

We are inclined to believe that provision of such devices by cable operators will not endanger development of the competitive marketplace envisioned in Section 629, particularly because the more advanced devices offered by cable operators for primary home use will be required to rely on the same CableCARD technology as devices offered at retail by consumer electronics manufacturers.<sup>47</sup>

It also bears emphasis that the CE industry is fully capable of manufacturing and marketing innovative consumer electronics equipment at retail with or without the Commission's rules for navigation devices. According to the latest data from the Consumer Electronics Association ("CEA"), CE industry revenue rose 11 percent to \$125.9 billion last year, led by demand for wireless devices, flat-panel televisions, portable music players, and videogame consoles, and factory sales of consumer electronics are expected to rise eight percent to a record \$135.4 billion in 2006.<sup>48</sup> As CEA President Gary Shapiro stated: "The numbers say it all -- the consumer electronics industry is hot. . . . Consumer electronic sales are consistently growing, breaking records every year, because our industry is constantly changing to provide products that

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<sup>46</sup> See *2005 Deferral Order* ¶ 35 (concluding that downloadable security would comply with the integration ban). NCTA indicated in a November 2005 filing with the Commission that downloadable security is feasible. See NCTA Report on Downloadable Security, filed in CS Dkt. No. 97-80, at 1 (Nov. 30, 2005).

<sup>47</sup> *2005 Deferral Order* ¶ 37.

<sup>48</sup> See *CES News Tracker*, Wall St. J. (Jan. 6, 2006).

consumers love and can't live without."<sup>49</sup> The 2006 Consumer Electronics Show provided more evidence of this marketplace dynamism and innovation.<sup>50</sup> All of this occurred, needless to say, in a market in which the integration ban is not yet in effect.

In sum, there is no basis for concern that grant of the waiver would harm the marketplace for CableCARD-enabled devices or other CE products.

**D. Denial Of The Waiver Request Would Slow Comcast's And Other MSOs' Transition To An All-Digital Platform And Harm Consumers.**

Failure to grant the requested waiver would effectively shelve Comcast's plans to deploy the DCT-700, Explorer-940, Pace Chicago, and similar low-cost, limited-capability devices beyond the effective date for the integration ban. Making these devices CableCARD-compliant would not be cost-effective. As an initial matter, these devices would have to be substantially redesigned to support a CableCARD. Among other things, a new chassis would have to be developed for the CableCARD interface; power would have to be added to support the CableCARD; and the motherboard would have to be redesigned. When these design and development costs are then added to the cost of a CableCARD, the overall cost of each device would increase greatly -- on the order of 50 percent or more. Rather than incur these added expenses, Comcast would be forced to pursue other equipment options. While it is difficult for Comcast to predict which option it would pursue under such circumstances, *any of these alternatives would require materially more expensive devices.*

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<sup>49</sup> *Consumer Electronics Wholesale Revenue Will Reach \$135.4 Billion In 2006*, CEA Projects, CEA Press Release (Jan. 2, 2006).

<sup>50</sup> *See Record Breaking 2006 International CES Reflects Strength Of Consumer Technology Industry*, CEA Press Release (Jan. 8, 2006) (noting that more than 150,000 people from 110 countries attended the CES this year and witnessed the introduction of thousands of new products and technologies from more than 2,500 exhibitors).

Such an outcome would certainly limit the pro-consumer benefits detailed above. Under this alternative scenario, fewer digital set-top boxes would be deployed and fewer customers would have access to digital programming and services. As a result, Comcast's and other MSOs' efforts to migrate their cable networks to an all-digital platform would be slowed, thereby delaying the recapture of analog spectrum for HD, VOD, and other services and impairing all operators' ability to compete more effectively with DBS and other all-digital MVPDs.<sup>51</sup>

Denial of the waiver will create other harms, as well. For example, it would constrain Comcast's ability to diversify the supply of low-cost, limited-capability devices to its cable systems. Comcast currently buys the DCT-700 from Motorola for deployment in its cable systems that utilize Motorola conditional access technology. Comcast also anticipates purchasing the Explorer-940 from Scientific-Atlanta for deployment in Comcast cable systems with Scientific-Atlanta headend equipment, as well as the Pace Chicago set-top boxes for deployment in cable systems with Motorola or Scientific-Atlanta headend equipment. Comcast wishes to expand its relationships with other equipment suppliers.<sup>52</sup> However, if the waiver is not granted, it will be difficult for Comcast to convince other equipment manufacturers to build low-cost, limited-capability devices, particularly since such a product will not be viable when the integration ban goes into effect.

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<sup>51</sup> Although the telephone companies that are entering the cable business are fully subject to the integration ban, there has been no clear indication that they are planning to comply with it.

<sup>52</sup> Comcast recently announced agreements with Samsung and Panasonic to purchase digital set-top boxes. See Matt Stump, *Comcast, Samsung Announce Pact*, Multichannel News (Jan. 5, 2006); *Panasonic and Comcast Announce Industry-First Agreement for Enhanced OCAP HD-DVR Set-Top Boxes and OCAP Software License*, Comcast Press Release (Jan. 4, 2006), available at <http://www.cmcsk.com/phoenix.zhtml?c=147565&p=irol-newsArticle&ID=800562&highlight=>.

Likewise, failure to grant the waiver will divert company and industry resources away from the development and deployment of downloadable security. As detailed in the NCTA filing, downloadable security is the preferred separable security method for the cable industry.<sup>53</sup> Comcast and other cable companies are working diligently to ready downloadable security for national implementation as quickly as possible. However, at Comcast, other MSOs, and their equipment suppliers, the same employees and testing facilities used for downloadable security are also used for CableCARD matters, various software activities (such as OCAP), and other set-top box-related developments, and these resources are already strained by the variety and pace of current activities independent of the integration ban. Consequently, if the requested waiver is not granted, Comcast, other MSOs, and cable equipment manufacturers will have to shift personnel and other resources away from downloadable security in order to develop alternatives to the DCT-700, Explorer-940, and Pace Chicago set-top boxes, at some risk to all of these projects.

**E. Grant Of The Waiver Is Consistent With Commission Precedent.**

The Commission has in the past granted permanent waivers of its cable equipment rules where approval of the waiver has such clear public interest benefits and failure to grant the waiver would result in equally clear public interest harms. For example, in a case involving BellSouth, the Commission granted a permanent waiver under Section 629(c) because “grant of a waiver will allow BellSouth to continue to deliver digital services to its subscribers” while requiring BellSouth to comply with the Commission’s plug-and-play rules “would disserve the public interest by making it impractical for BellSouth to deliver digital services to its

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<sup>53</sup> See NCTA Report on Downloadable Security at 1.