



deployment of HD-service affordable for all consumers is necessary to the full realization of the goals of the Commission's set-top box waiver policies.

### **BACKGROUND**

Cable One operates cable television systems in nineteen states, primarily in the southern, midwestern, and western portions of the country. Cable One's systems, which typically are located in smaller, mostly rural communities, serve a total of approximately 700,000 basic video customers (representing less than one percent of the nation's multichannel video programming distributor ("MVPD") households). Six of the company's current systems pass fewer than 10,000 dwelling units, 34 pass between 10,000 and 50,000 dwelling units, and only five pass more than 50,000 dwelling units. The average Cable One franchise area has fewer than 2,000 subscribers. With a company-wide penetration level of around 51 percent, Cable One more closely resembles the 1,000 smaller, independent cable operators in the country than the larger multiple system operators.

Notwithstanding the limited size of its systems and the communities it serves, Cable One has embraced the digital revolution. However, it has done so in an economically prudent manner, consistent with the resources of its customers. For example, while Cable One has introduced high speed Internet service in virtually all of its systems to date and also makes available digital telephone service to over 90 percent of its customers, bandwidth constraints have hampered Cable One's ability to provide the variety of HD programming or broadband Internet speeds now offered by larger MVPDs.

Over its history, Cable One has made customer satisfaction its top priority and research indicates that its efforts have paid off. However, the high and hard-earned level of customer satisfaction achieved by Cable One now stands at risk, as demand for

bandwidth-intensive HD networks and higher Internet access speeds outpace Cable One's available bandwidth. Roughly 60 percent of Cable One's customers currently are served by systems with only 550 MHz. As a result, Cable One offers only a limited amount of HD programming and generally does not offer two-way video services, such as video on demand ("VOD"). Moreover, Cable One is restrained by bandwidth considerations from offering the faster high-speed Internet access speeds that are becoming the norm in larger, more urban and suburban systems. In short, Cable One's customers face the prospect of being on the wrong end of a multi-faceted digital divide.

Cable One estimates that it would cost over \$250 million – about \$600 per subscriber – for the traditional analog plant upgrades that would be needed to serve all of its customers with at least 750 MHz. An investment of this size would invariably create pressure for significant rate increases that would be difficult to sustain in the face of marketplace realities and, in any event, would simply keep Cable One's systems trapped in a hybrid analog-digital mode instead of helping them move towards the desired goal of an all-digital future.

The advantages of moving to an all-digital network as systems run out of capacity are readily apparent. Converting limited bandwidth systems to all-digital would free up over 300 MHz for the new video products (particularly more HD video) and Internet speed enhancements that are available to consumers in larger communities. Again, however, the issue is one of affordability. Cable One's customers typically have three television receivers per household but less than one receiver per household is capable of receiving digital signals (either directly or through a digital cable set-top device). With the least expensive currently available HD-capable set-top box priced at between \$300 and \$400 per unit, Cable One (and its customers) face a \$495 million price tag (based on

a price of \$350 per set-top) to acquire and deploy the 1.7 million digital set-tops needed to go “all-digital.”

It is axiomatic that if Cable One’s customers cannot afford a \$250 million analog plant upgrade to a limited hybrid analog-digital platform, they also cannot afford a \$495 million all-digital conversion. However, as discussed below, Evolution’s waiver request, together with a refinement in the Commission’s “low-cost, limited capability” set-top box waiver standard to allow it to apply to basic, one-way HD-capable devices, will advance the efforts of cable operators such as Cable One to meet the needs of their subscribers in a manner that is technologically sound, economically feasible, and consistent with the spirit and goals of the Communications Act.

## DISCUSSION

### I. Grant of Evolution’s Waiver Request is in the Public Interest.

Evolution’s petition sets forth in detail the statutory and regulatory authority for its requested waiver and the reasons that grant of such waiver will serve the public interest. Specifically, Evolution is seeking a waiver pursuant to the Commission’s *2005 Deferral Order*<sup>1</sup> to allow cable systems to deploy low-cost, limited capability digital-to-analog converter boxes with integrated security. Evolution also cites Section 629(c) of the Communications Act, 47 U.S.C. § 549(c), and the Commission’s general waiver authority, 47 C.F.R. §§ 1.3 and 76.7, in support of its waiver request.<sup>2</sup>

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<sup>1</sup> *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, Second Report and Order, 20 FCC Rcd 6794 (2005) (“*2005 Deferral Order*”).

<sup>2</sup> Petition at 5-6. Section 629(c) directs the Commission to waive the prohibition on deployment of integrated set-tops for a limited time upon a showing 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.” The Commission’s general waiver authority allows it to grant relief from the set-top box integration ban “for good cause shown.” The Commission has indicated that requests for waivers for low-cost, limited capability boxes will be considered under the standard articulated in the *2005 Deferral Order* rather than under Section 629(c). *Comcast Corporation*, 22 FCC Rcd 17113 (2007) at ¶ 11. Thus, Part I of Cable One’s comments

In the *2005 Deferral Order*, the Commission indicated that it would consider waiver requests for “low-cost limited capability set-top boxes” to “further the cable industry’s migration to all-digital networks.”<sup>3</sup> The converter boxes for which Evolution is seeking a waiver fall squarely within this category of boxes: one-way, standard definition devices that do not feature video-on-demand or interactive program guide functionality or other “advanced features” such as personal video recording, broadband Internet access, or multiple tuner capabilities. Evolution currently prices these boxes at \$45 and \$55 (depending primarily on whether they come with a Smart (or “SIM”) Card included), which is substantially less than the price of any digital-to-analog tuner currently available.

Grant of the requested waiver will serve the goals set out by the Commission in the *2005 Deferral Order*. In today’s highly competitive video marketplace, cable operators have strong incentives to transition their systems from analog to digital in order to reclaim the bandwidth needed to offer new and additional services. However, for many smaller and medium-sized operators, who already have generally higher cost structures than their much larger DBS and telco video competitors, the ability to make this transition is dependent on their ability to offer a broad array of services to their customers at a competitive price.

Small and medium-sized operators thus find themselves between the proverbial rock and a hard place. On the one hand, in order to attract and retain subscribers who have two or more other options for multichannel video service, typically provided by much larger companies, new and additional services must be made available. Yet, even

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focus on the *2005 Deferral Order* standard; however, as discussed in Part II of these comments, the refinement in the *2005 Deferral Order* requested by Cable One also is consistent with Section 629(c) and the Commission’s general waiver authority.

<sup>3</sup> *2005 Deferral Order, supra*, 20 FCC Rcd at ¶ 37

expanded service offerings will not be enough to ensure the viability of these systems if the cost of multiple digital-to-analog boxes renders them unaffordable to smaller cable operators and their customers alike. It is not surprising that many medium and smaller operators, serving communities similar to many of those where Cable One operates, are seriously considering whether or not to terminate operations in certain systems that are not expected to remain competitive as the digital transition progresses. Grant of the requested waiver, which will permit the deployment of low-cost digital-to-analog converters, is critical to the very survival of some systems and will increase consumer welfare in all systems.

**II. The Commission Should Update the Low-Cost, Limited Capability Waiver Standard to Permit Waivers for HD Set-Top Boxes.**

As detailed above, Evolution is to be commended for its commitment to developing a low-cost, limited capability set-top box as contemplated by the *2005 Deferral Order*, and its request merits expeditious approval. In particular, boxes of the type described in Evolution's waiver request would play an important role in facilitating the conversion of cable systems in smaller, rural communities, such as those operated by Cable One, to bandwidth-efficient all-digital networks capable of providing consumers with additional services at an affordable cost. With the low-cost boxes described in Evolution's petition, digitally-transmitted signals could be displayed on the substantial embedded base of legacy analog TV sets in the homes of countless cable subscribers.

However, while the converters described in Evolution's petition are fine for simple digital-to-analog conversion for cable subscribers with analog sets, they do not address consumer demand for access to HD content. Consumers are acquiring HD sets at an accelerating pace and rightfully expect to be able to receive a broad variety of HD channels. And the demand for HD programming is by no means limited to the affluent

customer who purchases multiple service levels and perhaps can afford a high-end set-top with all the bells and whistles. To the contrary, even entry-level basic-only cable customers with limited budgets today expect all available local broadcast programming to be viewable in HD, and at a reasonable cost, which the relief requested herein will facilitate.

As explained below, the significant technological and competitive developments since the Commission's adoption of the *2005 Deferral Order* have rendered the policy of discouraging deployment of HD set-top boxes to be distinctly anti-consumer. Instead, the Commission should be affirmatively encouraging the widespread availability of HD programming at affordable prices, thereby allowing the benefits of the broadcast digital transition to be more fully realized by cable operators, consumer electronics manufacturers, and consumers alike. Accordingly, Cable One urges the Commission to update its *2005 Deferral Order* set-top box waiver standard to permit the deployment of low-cost, one-way set-tops with HD functionality.

Whatever the merits may have been for including HD functionality in a list of "advanced" set-top box capabilities in 2005, it no longer makes any sense to treat HD as anything other than what it has become: an expected and necessary element of every new television set purchase decision by consumers. The evidence supporting this conclusion, both factual and legal, abounds. For example, when the broadcast digital transition occurs on February 17, 2009, HD programming will be the *de facto* standard for the major broadcast television networks, all of whom already offer HD simulcasts of virtually all their prime-time programming. Moreover, the number of advertiser-supported basic cable networks offering HD versions of their programming has grown from around 20 at the time the *2005 Deferral Order* was adopted to nearly 60 at the end

of 2007, with at least 15 additional HD launches scheduled for just the first half of 2008.<sup>4</sup> Similarly, premium networks like HBO and Showtime are rushing to increase their offerings of HD feeds.<sup>5</sup> It is not surprising that HD video has been described as the “killer app” for today’s providers of multichannel video service.<sup>6</sup>

The evolution of high definition from an “advanced” service to a routine feature of the television landscape also is reflected in television set sales. When the *2005 Deferral Order* was released, sales of analog televisions still outnumbered sales of digital sets. However, consumer demand for HD television sets has been booming in the last three years, and virtually all sets sold today are digital and most of those are HD. An October 2007 report prepared by Strategy Analytics found that flat panel digital television sets (more than 70 percent of which offer HD) currently are in 41 percent of the nation’s homes and expected to hit the fifty percent mark this year.<sup>7</sup> By 2009, the penetration figure for flat panel sets is expected to top 70 percent of homes and a year later, 90 percent.<sup>8</sup> In other words, standard definition is no longer going to be “standard” for most viewers; rather, HD will be the norm, and thus can no longer reasonably be characterized as “advanced.” Moreover, the availability of a low-cost, limited functionality HD set-top box will undoubtedly further spur the sale of HD television sets and thus advance the goals of the digital television transition.

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<sup>4</sup> Information derived from NCTA’s on-line Cable Network Directory. See <http://www.ncta.com/Organizations.aspx?type=orgtyp2&contentId=2907>. See also Becker, “Great View: HD Offerings Climb,” *Broadcasting & Cable Magazine*, Nov. 26, 2007 (available online at [http://www.broadcastingcable.com/index.asp?layout\\_articlePrint&articleID=CA6504739](http://www.broadcastingcable.com/index.asp?layout_articlePrint&articleID=CA6504739)

<sup>5</sup> Winslow, “Pay Networks Put A Premium on HD,” *Multichannel News*, June 2, 2008.

<sup>6</sup> See *The Bridge*, Vol. 7, No. 6 (Feb. 5, 2008).

<sup>7</sup> See *The Bridge*, Vol. 6, No. 44 (Oct. 30, 2007).

<sup>8</sup> *Id.*

Given the growing and rapid transformation of the television universe into one in which HD is becoming the rule, not the exception, MVPDs are rushing to provide as much HD service as possible.<sup>9</sup> But for companies such as Cable One that operate limited capacity systems in smaller, more rural communities, two distinct hurdles must be overcome to meet the needs of their customers: finding the bandwidth to offer the expanding array of HD services<sup>10</sup> and keeping such HD service affordable.

Today, HD is not merely becoming the *de facto* standard for television; it is also essentially the *de jure* standard. The Commission's own rules governing the retransmission of digital broadcast signals, adopted subsequent to the *2005 Deferral Order*, firmly establish HD as the standard for the industry. Specifically, under the "viewability" and "material degradation" rules adopted last fall, cable operators – even those that offer only analog service – are effectively required to pass through all HD signals of local must-carry broadcasters.<sup>11</sup> While there are indications that the Commission may offer some relief from this requirement for smaller and bandwidth challenged cable operators, the future of these systems hinges on their ability to transition

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<sup>9</sup> For example, DirecTV and Dish Network have both structured marketing campaigns around the claim that they offer more HD programming than cable. See <http://www.directv.com/DTVAPP/index.jsp> (touting claim that DirecTV has "over 90 of your favorite channels in HD"); [http://www.dishnetwork.com/content/our\\_products/dish\\_hd/programming/index.shtml](http://www.dishnetwork.com/content/our_products/dish_hd/programming/index.shtml) ("[w]ith over 70 HD channels available, Dish Network offers something for everyone — sports, movies, news, lifestyle and family entertainment"). Cable is answering with its own HD-oriented advertising campaigns. According to a Comcast ad in the front section of the January 8, 2008 Washington Post:

It's simple. Comcast just has more HD. Period. More than satellite. More than anyone. And there's no end in sight. With twice as many choices as satellite now – we're adding more every day and will have over 1,000 HD shows and movies by year's end.

<sup>10</sup> Delivery of programming in HD typically requires 3 to 6 times more bandwidth than digital transmission of that same programming in standard definition.

<sup>11</sup> *In the Matter of Carriage of Digital Television Broadcast Signals: Amendment to Part 76 of the Commission's Rules, Third Report and Order and Third Further Notice of Proposed Rulemaking ("DTV Viewability Order")*, 22 FCC Rcd 21064 (rel. Nov. 30, 2007).

to all-digital networks and their ability to make that transition depends on their ability to provide their customers with an affordable HD television service.

Under the circumstances, and in recognition of the fact that HD television is rapidly reaching the point where it is as much a standard feature in any new television being purchased as is color,<sup>12</sup> it is essential for the Commission to revisit its characterization of a one-way, low-cost cable set-top box with HD functionality as an “advanced” set-top, ineligible for a waiver under the *2005 Deferral Order*. Evolution has informed Cable One that if the Commission extends the relief being sought for Evolution’s current generation of standard definition one-way boxes to similar boxes with HD capability, it can produce and bring to market by year’s end a basic, one-way HD-capable set-top priced below eighty dollars, and in the quantities needed by Cable One and similarly situated smaller operators.<sup>13</sup>

Facilitating the deployment of basic, HD-capable boxes will ensure that the goals underlying the waiver standard adopted in the *2005 Deferral Order* are met. As discussed above, a non-HD, low-cost basic set-top will play an important role in the migration of cable systems to all-digital networks by providing cable operators with a cost-effective mechanism for providing service to the substantial embedded base of legacy analog sets. But many customers have HD-capable sets already, even if they

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<sup>12</sup> In fact, HD is more quickly becoming the “standard” for television than was the case for color. It took 14 years from the introduction of color television for the number of color sets sold annually to surpass the number of black and white sets. Digital sets (most of which now offer HD) exceeded analog sets in sales only nine years after they hit the market. *See* [http://www.tvb.org/rcentral/mediatrendstrack/tvbasics/06\\_5\\_TV\\_Set\\_Sales.asp](http://www.tvb.org/rcentral/mediatrendstrack/tvbasics/06_5_TV_Set_Sales.asp)

<sup>13</sup> While Cable One refers herein to a low-cost, limited capability “set-top,” the device itself may not actually be designed to sit on, above, or below the subscriber’s television set. It may ultimately be designed as a small piece of equipment (around the size of a pack of cigarettes) that can reside behind the television set between the cable outlet and the set. The specifications for the device Evolution has discussed with Cable One would be essentially the same as those submitted with Evolution’s waiver petition, except it would include an HDMI output for HD capability and would accept both MPEG-2 and MPEG-4 digital signal inputs.

subscribe to a cable system that only has the capacity to offer (at best) a limited array of HD-service, and the number of customers with multiple HD-sets is certain to be increasing in the near future. Removing barriers to the provision of HD service to this growing universe of HD-capable sets – such as the limitation on the Commission’s low-cost set-top box waiver policy to non-HD boxes – is crucial if cable operators such as Cable One are to fulfill the “digital future” envisioned by the Advisory Committee on Advanced Television Service (and embraced by the Commission)<sup>14</sup> by migrating their systems to all-digital operations.

Updating the low-cost, limited capability waiver standard so that it will cover a low cost, one-way, HD-capable set-top also is consistent with the statutory waiver standard under Section 629(c). Under Section 629(c), the Commission is required to waive the integration ban where “such waiver is necessary to assist the development or introduction of a new or improved video programming or other service.” In the *Comcast* case, the Commission found that a waiver under Section 629(c) was not warranted because nearly half of Comcast’s subscribers already were digital customers.<sup>15</sup> However, the appropriate benchmark for assessing Cable One’s request that the low-cost, limited capability waiver standard be updated to cover low-cost, basic (i.e., one-way) HD-capable boxes is the penetration level of HD service. While around one-third of Cable One’s subscribers take digital service, only around 19 percent subscribe to HD service. And that number is unlikely to reach its full potential unless a low-cost equipment option

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<sup>14</sup> *In the Matter of Advanced Television Systems and Their Impact Upon Existing Television Broadcast Service*, Fourth Report and Order, 11 FCC Rcd 17771 (1996).

<sup>15</sup> *Comcast Corporation v. FCC*, No. 07-1445 (May 16, 2008) at ¶ 7.

for HD viewability becomes available, facilitating the migration to all-digital operations and the addition of more HD programming.<sup>16</sup>

Finally, the requested extension of relief for low-cost, HD-capable set-top boxes is consistent with the waivers the Commission has granted for the deployment of certain integrated boxes under its general special relief authority. Specifically, the Commission has permitted cable operators to deploy certain two-way integrated set-tops in systems committing to migrate to all digital platforms by February 17, 2009.<sup>17</sup> Just as such waivers were deemed to produce clear, non-speculative, public interest benefits by furthering the migration of cable systems to all-digital networks, so too will allowing cable operators to deploy very low-cost, one-way set-tops with HD functionality provide an economical and expeditious path for transitioning to all-digital.

From the consumer's standpoint, HD clearly is the driver of the digital transition, and the public plainly will benefit from the adoption of a waiver policy that permits the deployment of basic, one way, low-cost, HD-capable equipment that will facilitate the transition of small and medium-sized cable operators to all-digital platforms. Nor will extending the existing waiver policy to cover low-cost, one-way HD capable set-top boxes impede the development of a competitive retail market for non-integrated boxes. The recent memorandum of understanding regarding tru2way should serve as the spark for the development of a robust retail market that did not arise in the context of one-way services. Furthermore, permitting the deployment of a basic, one-way, low-cost HD-

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<sup>16</sup> In theory, the widespread use of CableCard-enabled television receivers might ameliorate this problem somewhat. But, in fact, the vast majority of HD sets available on the market, and the vast majority of the HD sets being sold, are not CableCard-enabled. For example, Crutchfield, a leading on-line electronics retailer, offers 125 LCD and plasma television sets on its website; of these, only two are identified as "CableCard compatible." See [http://www.crutchfield.com/App/Product/Group/ProductMenu.aspx?g=146350&c=16&tp=161&nvpair=A\\_G\\_General\\_Features%7cYCCableCard\\_Compatible](http://www.crutchfield.com/App/Product/Group/ProductMenu.aspx?g=146350&c=16&tp=161&nvpair=A_G_General_Features%7cYCCableCard_Compatible)

<sup>17</sup> See, e.g., *Bend Cable Communications, LLC*, 22 FCC Rcd 209 (MB, 2007).

capable set-top box will not alter a cable operator's duty to support equipment purchased at retail with CableCard functionality, nor will it relieve operators of the obligation to deploy only compliant boxes (using CableCard and/or a compliant downloadable security solution) for any truly "advanced" services that it offers, including interactive program guides, VOD, PVR, and other two-way offerings. Thus, customers desiring these high-end functionalities will continue to have the ability to purchase such devices at retail, and those devices will be fully supported by Cable One and all other cable operators.

### CONCLUSION

Evolution has stepped up to the plate and is prepared to deliver basic one-way, low-cost integrated set-top boxes that will facilitate the transition of cable systems to all-digital platforms. These are precisely the devices the Commission has previously indicated that it would allow under the *2005 Deferral Order* and Evolution's waiver request for these devices should promptly be granted.

In addition, the Commission should update its waiver standard in recognition of the fact that HD-functionality can no longer be considered an "advanced" service and that the important consumer benefits of achieving all-digital service include providing consumers with an affordable means of accessing HD content. As Chairman Martin recently stated:

One of the most exciting features of digital technology is the advent of HDTV. Broadcasters are providing all sorts of sports, news and entertainment content in this format and increasing numbers of consumers are purchasing televisions to watch this programming. Consumers with these sets should be able to fully experience this enhanced viewing opportunity. If consumers buy a new expensive, HDTV, they reasonably expect to get high-definition signals.<sup>18</sup>

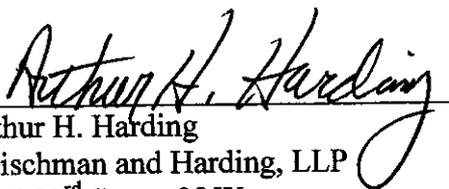
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<sup>18</sup> *In the Matter of Carriage of Digital Television Broadcast Signals, Second Further Notice of Proposed Rulemaking*, 20 FCC Rcd 8803, 8820 (2007) (Statement of Chairman Kevin J. Martin).

Cable One shares the view of the future articulated by the Chairman – a future, as we have demonstrated, that will be furthered by updating the low-cost, limited-capability waiver standard so that it covers one-way, low-cost, HD-capable set-top boxes. As the visionary goals of the Advisory Committee on Advanced Television Service are about to be realized with the dawn of all-digital broadcast television on February 17, 2009, the time is ripe for the Commission to take the next step to advance the digital transition through a grant of the relief requested herein.

Respectfully submitted,

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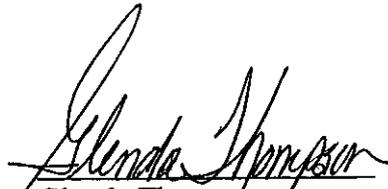
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Dated: June 16, 2008  
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**CERTIFICATE OF SERVICE**

I, Glenda Thompson, a secretary at the law firm of Fleischman and Harding LLP, hereby certify on this 16<sup>th</sup> day of June, 2008, copies of the foregoing "Comments of Cable One, Inc." were sent via first class mail, postage prepaid, to the following:

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