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June 29, 2006

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Notice of Ex Parte Presentation, CS Docket No. 97-80

Dear Ms. Dortch:

On behalf of the National Cable & Telecommunications Association (“NCTA”), I am writing to set the record straight with respect to certain consumer electronics (“CE”) manufacturers’ allegations about cable operator support for CableCARDS in retail Digital Cable Ready (“DCR”) devices. Some CE companies and their trade association (“CEA”) persist in repeating false and misleading claims about cable operator provisioning and support for CableCARDS in those retail devices.¹ The cable industry has refrained from responding to these claims for some time on the theory that the constructive nature of inter-industry discussions belies the hyperbole in the CE industry’s FCC filings. Unfortunately, the CE misinformation campaign is continuing² and this rebuttal is necessary to have a balanced record before the Commission. We hope that a clearer understanding of the issues will help both industries – and the Commission – address real solutions to benefit our common customers who rely on CableCARD-enabled DTV sets.

¹ See, e.g., Comments of the Consumer Electronics Association On Request for Waiver of 47 C.F.R. §76.1204(a)(1), CS Docket No. 97-80, CSR-7012-Z, June 15, 2006, at 7 (“CEA and member companies have amply documented the support failures by cable operators”); Comments of Sharp Electronics Corporation On Request for Waiver of 47 C.F.R. §76.1204(a)(1), CS Docket No. 97-80, CSR-7012-Z, June 15, 2006, at 2 (“[C]able operators’ support for CableCARD devices has been spotty and fraught with pitfalls”); Comments of Sony Electronics, CS Docket 97-80, CSR-7012-Z, June 15, 2006 at 3 (“[S]ubstantial incompatibilities continue to exist between [CableCARD-enabled retail] devices and the cable networks to which they attach.”). See also, Letter from Julie M. Kearney, CEA, to Marlene H. Dortch, CS Docket No. 97-80, March 23, 2006, at 1 (consumer problems with CableCARD-enabled devices are “caused solely by errors or omissions attributable either solely or primarily to the systems employed by cable MSOs and/or their CableCARD vendor.”)(CEA March 23, 2006 *ex parte*”).

² See, e.g., “Cable Clearly Culprit in CableCARD Snafus, CE tells FCC,” *Communications Daily*, March 30, 2006, at 8; “CableCARD Viability at Stake in Comcast Waiver Bid, CEA Says,” *Communications Daily*, June 27, 2006, at 7.

Introduction

There are now approximately 170,000 CableCARDs deployed by cable operators. As we said in our most recent CableCARD status reports: “As with the deployment of any new technology, challenges do exist. This is particularly true in the instant case since a variety of manufacturers have made a number of CableCARD-enabled ‘Host’ devices (*e.g.*, DTV sets) – each with their unique functionalities and different implementation choices – that must work seamlessly with CableCARDs to satisfy consumer expectations. As a result, the complexities of making these devices work correctly right out of the box are multiplied several fold.”³ “*With almost 170,000 CableCARDs deployed for use with Digital Cable Ready products, it is not surprising that a few problems may have arisen, but they pale in comparison with the numbers of cards deployed.*”⁴ Despite this obvious fact, CE interests continue to cite anecdotes purporting to show that cable operators are not supporting CableCARD-enabled devices.

For example, a recent CEA *ex parte* filing described fewer than thirty anecdotes purportedly showing that consumer problems with CableCARD-enabled devices are “*caused solely by errors or omissions attributable either solely or primarily to the systems employed by cable MSOs and/or their CableCARD vendors.*”⁵

That simply is not the case, as demonstrated by the cable company responses to those anecdotes attached as Appendix A. Moreover, as demonstrated by the list which has been compiled by CableLabs and is attached as Appendix B, there have been significant issues with digital cable ready products which CE manufacturers ignore when assigning responsibility for CableCARD-related problems.

CableLabs has been an invaluable resource for CE manufacturers who have built one-way Plug and Play devices known as “Unidirectional Digital Cable Ready Products” (“UDCPs”). It has answered questions, tested devices and identified problems with UDCPs. The attached “UDCP Issues List” clearly shows the existence of widespread and frequent problems in UDCPs arising from software/firmware, hardware and configuration deficiencies. These problems are found in UDCPs from every UDCP manufacturer which provided anecdotes in the CEA *ex parte* and which attributed every problem to purported deficiencies in CableCARDs. These manufacturers include Sony, Sharp, Philips, Hitachi, JVC, Toshiba, LG and TTE (RCA) as well as other manufacturers. Indeed, cable operators expend a significant amount of time, money and resources (including truck rolls in most cases), responding to complaints about CableCARD-enabled products, only to find out the problem is caused by the TV receiver, not the CableCARD. Meanwhile, CE companies have not taken any proactive measures to address these problems; any remedial steps are taken only when a customer complains (often through their cable operator or CableLabs), if then. The CE industry’s lobbying slogan (“common reliance”)

³ Letter from Neal M. Goldberg to Marlene Dortch, CS Docket 97-80, March 30, 2006, at 2.

⁴ Letter from Neal M. Goldberg to Marlene Dortch, CS Docket 97-80, June 26, 2006, at 2.

⁵ CEA March 23, 2006 *ex parte* at 1 (emphasis added).

will not fix UDCP problems; better testing by CE manufacturers before they “self-verify” their DTVs is the only solution to those problems.

Both the CE and cable industries need to step up to the plate, acknowledge that each industry has responsibilities for making UDCPs work properly with CableCARDS and that neither industry can shirk its responsibility nor blame the other for all of the problems that may arise with UDCPs. To their credit, some CE manufacturers who have also experienced problems in the field with their products recognize that problems always arise with the launch of new technology and any problems their DTVs might have with CableCARDS do not reflect lack of support by cable operators for retail products. These manufacturers have worked constructively with cable operators and CableLabs to address known issues, rather than filing unsupported anecdotes with the FCC claiming lack of cable operator support for CableCARDS. That approach reflects a business-like understanding that problems in the field provide no basis to challenge the credibility of the cable industry, to attack every specification and license the industry uses, or to oppose anything and everything that the cable industry might propose to improve consumer navigation device options. This constructive approach (rather than carping from the sidelines) has resulted in cooperative resolution of any problems with those manufacturers’ devices.

The cable system is a complex private network that must be constantly managed. We readily acknowledge that any new technology has problems to overcome – even cable’s own set-top boxes have been known to have problems when initially deployed. CableCARDS are even more complicated because a CE host device which has been subject to minimal testing must be mated with a CableCARD produced by a different manufacturer. But both the cable and CE industries have every incentive to make these devices work since the consumers purchasing “cable ready” sets are customers of both a CE manufacturer and a cable company. The CE manufacturer does not want its TV set returned and the cable operator wants to assure that its customer is able to receive its services. Indeed, to satisfy customers’ expectations, cable operators’ incentives are ongoing – they have to win their customers’ approval every month. And the operator’s ongoing incentive comes not only from the fact that his business is in providing programming to the consumer, but also because, if there is a problem in receiving services in the manner expected, the cable company will receive the first call. As a result, it likely will dispatch a technician to determine the problem – an expensive proposition for the operator and an annoyance for the cable customer. To address this issue, we suggest below that a more stringent testing regime be established for UDCPs and successor host devices. But first we address general assertions that have been made by the CE industry that misrepresent issues with CableCARDS and UDCPs.

Separating Myth from Reality

Myth: Cable operators “actively discourage consumers from using or relying on CableCARDS [including] the incorrect disparagement of particular brands or models....”⁶

⁶ CEA March 23, 2006 *ex parte* at 1.

Reality: The Commission has imposed an obligation on cable operators to inform consumers about the functionalities and limitations of their UDCPs. *They are doing precisely what the Commission asked them to do in its Plug and Play Order by informing customers about the “functionalities” (or lack thereof) of such devices,* particularly that they will need a set-top box to access cable’s two-way services. UDCPs on the market today are “one-way” devices. While the “one-way” nature of UDCPs was understood and accepted by the cable and CE industries (and the FCC), those devices do have obvious limitations. For example, they cannot receive operators’ video-on-demand (“VOD”) services nor function with the operator’s interactive electronic program guide.

The FCC recognized this problem and required that cable operators – *and CE manufacturers and retailers* – make sure consumers were aware of the limitations of UDCPs.

We remain concerned, however, that the voluntary nature of the labeling regime and the fact that a clear statement of a unidirectional digital cable television’s functionalities is only provided in post-sale material may not aid consumers in making purchasing decisions. *In particular, we believe that the digital ready designation, absent further clarification or explanation, may cause consumer confusion because it does not indicate that a set-top box will be needed to receive interactive services. As discussed above, we expect that the cable industry will fulfill and expand upon its voluntary commitments in the MOU to ensure that subscribers and local retailers are both aware of the availability of digital cable service in their area and of the compatibility of unidirectional digital cable products with operators’ systems.* The MOU, however, also reflects an understanding that consumer electronics manufacturers need not provide retail or pre-sale consumer notification information. *We strongly believe that it is incumbent upon the consumer electronics industry to collaborate with both their retail partners and the cable industry to develop consumer awareness campaigns about unidirectional digital cable televisions and their functionalities, particularly with regard to the need for set-top boxes in order to receive interactive services. Information could be disseminated to consumers in many different ways, including but not limited to cable subscriber notices, Internet websites, point of sale marketing materials to be provided to retailers, more informative labeling on device packaging, or some other appropriate format designed to reach consumers before they make purchasing decisions.*⁷

⁷ See *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment* (CS Docket No. 97-80 & PP Docket No. 00-67), Second Report and Order, 18 FCC Rcd 20885, 20904 (2003), *petition for review pending, EchoStar Satellite LLC v. FCC*, D.C. Circuit No. 04-1033 (filed January 27, 2004) (“*Plug & Play Order*”) (emphasis added).

Cable operators have carried out this mandate. However, we are not aware of any cautionary labels placed by CE manufacturers on outside packaging or on TV screens, or any similarly prominent pre-sale notices which would inform a consumer *before* sale of the limitations on a television receiver's ability to receive advanced digital services. Despite exhortation by the FCC that all parties engage in a "consumer awareness" campaign, the CE industry has left it to the cable industry to explain that one way DTVs marketed as "digital cable ready" cannot receive all cable services – and then has attacked the cable industry for doing so. This is a real consumer issue, requiring real consumer education, not gratuitous and misleading filings at the FCC.

Myth: The difference in the number of UDCPs produced by manufacturers and CableCARDS deployed demonstrates lack of operator support for UDCPs.⁸

Reality: Cable operators have provided their customers with CableCARDS whenever the customer so requests. That is their obligation. They are not obliged to become marketers for particular types of television sets. The fact that the number of CableCARDS deployed by cable operators is significantly smaller than the number of CableCARD-compatible UDCPs purportedly made by CE manufacturers or sold by retailers proves nothing about operator support for the cards, although it may well demonstrate that those devices are not succeeding in the marketplace for other reasons.

In fact, the number of consumer requests for CableCARDS is reasonable, considering that the cards only serve unidirectional DTVs. One hundred percent card usage on every DTV with a card slot should not have been expected. The comparison of CableCARDS deployed with the number of CableCARD-enabled sets proves nothing. CEA often touts the number of HDTV sets sold even when many of those sets are not used for watching high-definition programming. According to recent Forrester Research data, nearly half of the buyers of HDTV sets are not even using the high-definition feature – not only because they consciously chose not to do so, but also because they did not know the HD television would not give them high-definition channels without additional equipment or an HD subscription.⁹

⁸ See, e.g., Comments of the Consumer Electronics Association on NCTA Downloadable Security Report, CS Docket No. 97-80, January 20, 2006, at 3 (claiming 3.8 million TV receivers capable of relying on CableCARDS). The Commission has repeated this specious argument. See Brief for Respondents at 17, *Charter Comm. Inc. and Advance/Newhouse Comm. v. FCC*, No. 05-1237 (D.C. Cir. Mar. 7, 2006) ("[T]he record raised grave concerns about cable operators' commitment to supporting CableCARDS, as reflected in the fact that only a de minimis percentage of CableCARD-compatible sets are actually being used with CableCARDS.")

⁹ New Research Proves HDTV Still 'Fuzzy' for Consumers, December 6, 2005, available at <http://webwire.com/ViewPressRel.asp?SESSIONID=&aId=6521>.

Contrary to CEA's claim that cable operators have failed to adequately support CableCARDS, our prior status reports have documented that support.¹⁰ Indeed, before this issue became a regulatory football, CEA's President and CEO Gary Shapiro told the press that cable operators "have stuck to their promise to support" CableCARDS.¹¹

Myth: "Cable dragged its feet and didn't provide [a] multi-stream card to TiVO"¹² and "despite repeated requests by CE manufacturers for expedition" specifications for CE devices still call for the use of "single stream" ("S") cards exclusively."¹³

Reality: First, specifications for the multistream CableCARD ("M-CARD") and host interface are complete and CableLabs has qualified multistream cards from both CISCO/Scientific-Atlanta and Motorola. As a result, M-CARDS should be available from cable operators within the next few months. In addition, the HPNx test tool is now commercially available to manufacturers to assist in building host devices with an interface compatible with a multistream CableCARD.

Second, as for claims that cable "dragged it feet" in developing the M-CARD, nothing could be further from the truth. In fact, the opposite is true as a glance at the FCC record in the *Plug and Play* proceeding will demonstrate. As we have repeatedly shown, during the FCC rulemaking on the *Plug and Play* Agreement, the sole TiVo request was that the Commission require cable operators to provide *two* CableCARDS for its dual tuner devices and it was the cable industry which offered to develop a multistream CableCARD.¹⁴ Then, in adopting rules implementing the *Plug and Play* Agreement, the Commission said that "[w]hile a multi-stream POD specification is being developed, we expect that cable operators will make multiple PODs available to consumers with [UDCPs] that have dual tuner functionality."¹⁵ *Operators have done exactly that as evidenced by the fact that TiVo announced and exhibited its TiVo Series 3HD Digital Media Recorder with dual CableCARDS at this year's Consumer Electronics Show.*¹⁶

¹⁰ NCTA Status Report, Docket No. 97-80 (Dec. 9, 2005) at 2 (describing extensive cable support procedures and initiatives for CableCARDS, including internal teams, a multi-MSO collaborative to share support strategies); NCTA Status Report, Docket No. 97-80 (Oct. 3, 2005). *See also* Appendix B.

¹¹ *Consumer Electronics Daily*, August 31, 2005.

¹² Transcript of Oral Argument at 27, *Charter Comm. Inc. and Advance/Newhouse Comm. v. FCC*, No. 05-1237 (D.C. Cir. May 11, 2006)(Statement by FCC counsel arguing for FCC and CEA).

¹³ CEA March 23 *ex parte* at 8.

¹⁴ *See e.g.*, Letter from Neal M. Goldberg, NCTA, to W. Kenneth Ferree, FCC, CS Docket No. 97-80, December 20, 2004, at 6-7; Letter from Neal M. Goldberg, NCTA, to Jonathan Cody, FCC, CS Docket No. 97-80, January 4, 2005, at 5.

¹⁵ *Plug and Play Order* at ¶ 20.

¹⁶ CES Feeding Frenzy 2006, *Forbes.com*, January 6, 2006, available at http://www.forbes.com/digitalentertainment/2006/01/06/consumer-electronics-show_ex_rr_0106cesproducts.html.

It is equally significant to note that, in the *Plug and Play Order*, the Commission said that M-CARD issues “are best addressed through the ongoing bidirectional negotiations and continuing development of the OpenCable Applications Platform (“OCAP”) specification [for two-way devices].”¹⁷ As noted, both CISCO/Scientific-Atlanta and Motorola M-CARDS have been qualified by CableLabs and can be used with two-way OpenCable Host 2.0 devices. And, in order to expedite the availability of M-CARDS for one-way devices, CableLabs is working to define an appropriate test suite for an M-CARD interface for UDCPs.

*Myth: Use of “switched digital” technology is part of an effort to “actively discourage consumers from using CableCARDS.”*¹⁸

Reality: Cable operators are exploring the use of “switched digital video” as a means to efficiently manage their network spectrum, maximize value for their subscribers, and keep pace with their competitors. Demands on cable system capacity are growing exponentially. More programmers will be offering HD content. Consumers are demanding even greater high-speed data capacity. Digital simulcasting will provide digital alternatives to analog signals. More offerings of advanced services such as video-on-demand, high-definition video-on-demand, subscription video-on-demand, free video-on-demand, and services such as Time Warner’s “Start Over” product, are putting ever-increasing demands on cable operator system capacity.

According to AT&T, all of its video offerings will be “switched.”¹⁹ DirecTV has announced that it will eventually have 1,500 local high-definition channels and 150 national high-definition channels on its DBS system. Cable’s use of switched technology is necessary to meet this competition and provide consumers with access to more high-definition channels, higher-speed data rates, all-digital networks, increased on-demand content, new program networks and other new services.

Because of the two-way, interactive nature of switched digital technology, UDCPs cannot access switched channels (any more than they can access interactive video-on-demand). But it is hardly correct to claim that cable operators are developing switched technologies in an effort to discourage the use of CableCARDS. Operators’ use of switched digital is intended to expand the capability of cable networks to provide competitive services. It is simply inaccurate to suggest that use of the technology is intended to discourage consumers from using CableCARDS. In any event, the modest impact on UDCP customers is more than outweighed by the substantial consumer benefits that switching enables.²⁰ And, of course, two-way retail devices, such as the Samsung two-way DTV recently certified by CableLabs and shown at this year’s Consumer Electronics Show, will be able to access switched channels. Customers may also receive

¹⁷ *Plug and Play Order* at ¶ 20.

¹⁸ CEA March 23, 2006 *ex parte* at 2.

¹⁹ *Video Network Architecture & Internet Protocol (IP) Video Distribution Advantages*, available at <http://att.sbc.com/gen/press-room?pid=5838>.

²⁰ See Letter from Steven N. Teplitz, Time Warner Cable, to Marlene H. Dortch, Secretary, FCC, CS Docket No. 97-80, May 11, 2006.

switched services through a set-top connected to their TV, whether “digital cable ready” or not – just as they do for on-demand programming.

Operator Responses to CEA CableCARD Anecdotes

In its recent *ex parte* filing, CEA cited fewer than thirty essentially unsupported and sometimes untraceable anecdotes regarding purported CableCARD-related “problems” which it attributed “solely or primarily” to the local cable operator or the CableCARD supplier. At the outset, it is noteworthy that when the CEA filing was made there had been over 140,000 CableCARDS deployed by cable operators for use in UDCPs. Even assuming the validity of the roughly 30 anecdotes cited in the CEA filing, *they represent less than .02% of all CableCARDS deployed – that is 2/100ths of a percent.* But, even so, the CEA anecdotes are not all correct. In response to allegations levied in the CEA filing, we attach the results of each operator’s investigation of the anecdotes pertaining to its system. While some of the anecdotes reflected legitimate concerns which have since been rectified, others simply would not withstand scrutiny.

One response to a CE anecdote is illustrative of how CE may tell one story to the FCC and another outside the beltway. It is worth quoting verbatim. This is the Charter response to an allegation by JVC:

In the JVC submission to the FCC, David Kline tells the FCC in 48 point type that the experience of the first CableCARD subscriber in Smyrna, Georgia – a JVC Service Center Supervisor – was a “bad omen.” He criticizes the system because a CableCARD had “suddenly appeared” after Mr. Kline asked for the installation during a temporary card shortage. Mr. Kline reports seven visits by technicians trying to get the JVC set to receive premium services, after which the JVC employee returned the set to JVC.

Mr. Kline’s reports outside the beltway tell a different story. Well over 14 months ago, Charter did have a temporary shortage of cards caused by a delivery problem. Yet at Mr. Kline’s request, Charter obtained one for the test. According to interviews with the cable service technician, the JVC Service Center Supervisor believed that the problem was with the JVC TV. In Mr. Kline’s February 2005 emails to Charter, Mr. Kline thanked the system for working so cooperatively with JVC on what he called a “test.” “We at JVC really appreciate your time and effort in making this test possible. ... It is always a learning experience when rolling out a new technology, especially when it is a complex interoperability between local cable operators and a wide variety of CE products. I am sure we all look forward to the not too distant day when all these rollout issues are resolved, and we both have happy customers.” By March, Mr. Kline sought out Charter’s Don Watson during a CEA standards meeting and expressed his appreciation to Charter and the local technician working on the CableCARD issue with JVC’s employee. According to Charter’s billing records, the subscriber did not replace a

card with a set-top – he disconnected all cable service, presumably because the test was complete.

Mr. Kline also questions the value of CableLabs certification, if such field problems can possibly arise on a certified DTV. The test suite used for “plug and play” UDCP TVs was a watered down, negotiated test suite and is NOT as extensive as the test suite that the cable industry uses for certifying OpenCable set-tops or for its own leased set-tops. It is a very limited verification test, because CE manufacturers like JVC would not accept comprehensive testing for UDCPs. Instead, CE manufacturers insisted that certification tests be curtailed to far more limited verification tests, and then that manufacturers be permitted to self-verify their testing and send post card reports to CableLabs when they believed they were done. The consequences of scaling back such tests is that one manufacturer’s CableCARD-enabled DTV does not work properly with a CableCARD when the DTVs from five other manufacturers work perfectly using the same CableCARD on the same cable system. It is not the lack of “common reliance” that leads to such manufacturing problems.

CableLabs UDCP Issues List

Although the CEA filing blames all problems associated with UDCPs and CableCARDS on the cable industry, what it pointedly ignores are the extensive problems with the CE industry’s own products. Since July of 2004, when UDCPs first entered the market, CableLabs, without significant input from CE companies despite requests for assistance, has documented known problems with UDCPs from virtually all CE manufacturers who build those devices. This “UDCP Issues List,” as well as a brief description of the cable industry’s efforts to anticipate and address UDCP issues, is attached as Appendix B. We understand that some problems are expected in the launch of any new technology. As noted above, the cable industry itself has often faced technical problems with the deployment of leased set-top boxes. But CE problems with UDCPs go well beyond the ordinary set of issues in the launch of a new product. *This is largely due to inadequate testing of UDCPs, and manufacturer efforts to hide problems from the cable industry, consumers, the FCC, and from each other.*

These problems include selling non-verified “Digital Cable Ready” UDCPs for use on cable systems (an FCC labeling violation); selling UDCPs with various hardware problems such as defective power supplies, bad tuners, bad solder joints, projector lamps that interfere with the CableCARD interface, defective main boards, bad wave solder processes, component tolerance issues, bent pins, and software/firmware problems such as improperly designed software, corrupt software and firmware that doesn’t function properly.

As detailed in Appendix B, the cable industry has expended significant resources when complaints are made about CableCARDS, only to discover the problem is a UDCP problem, not a CableCARD problem. Prior to and after launch, the cable industry offered CE companies free lab time at CableLabs, cable operators have opened their own labs, and every day in the field

they troubleshoot CE products because the CE customer is also a cable customer and expects to receive the cable services to which he has subscribed. Unfortunately, the CE industry did not see fit to provide a similar level of cooperation. It started out on the wrong foot by first insisting on a “self-verification” regime under which only one model of each UDCP would be tested at CableLabs and the remainder would be “self-verified.” Then CE insisted on a less vigorous Joint Test Suite (“JTS”) than cable desired and an alternative (rather than a consistent “common”) Acceptance Test Plan (“ATP”) which generally allows CE manufacturers to test however they see fit. Then, after field issues arose with UDCP devices, the CE industry consistently vetoed amendments to the joint test suite that would have likely rectified these problems or at least clarified how to resolve them.

The cable industry set up joint conference calls to discuss issues in an open forum, but CE manufacturers were unwilling or unable (because of competitive concerns) to be forthcoming in these discussions. Cable operators requested that a website be established for sharing information on known problems, but the CE industry refused to agree to such a common site. During conference calls, CE companies denied the existence of problems to each other, and now they are denying that these same problems exist to consumers and to the FCC. Finally, as problems surface in consumers’ homes, the CE industry relies on the cable industry to troubleshoot its products, and refuses to become involved in many cases until months after problems are reported.

These results are alarming – CE manufacturers waiting months to provide known fixes; CE manufacturers not telling customers of known problems and burying notifications in their web pages; and CE manufacturers not fixing problems until the cable industry discovers them in customer homes. Based on both the investigation of the CE anecdotes and the CableLabs compilation of problems with UDCPs, it is clear that there are extensive problems with CE host devices which can only be resolved through more stringent testing of those devices before they are distributed and sold to consumers.

A Rational Approach to Consumer Problems With UDCPs and CableCARDS

There are several lessons to be learned from the above-described experiences.

First, “common reliance” would not fix these problems. The problems have more to do with DTV testing – or lack thereof – than with cable’s set-top boxes having integrated security.

Second, the CE industry must make greater disclosure of problems found in UDCPs to consumers, cable operators and retailers.

Third, testing for next generation products must be better.

Fourth, while the cable industry will continue to work with CE manufacturers in order to better serve our mutual customers, CE companies cannot continue to shift blame, costs, responsibilities, and service requirements from themselves to the cable industry and cable

network. A CE customer should not be left with an unsupported product that may never be properly fixed. As CE manufacturers build products with built-in cable functionality, they must stop thinking that their responsibility ends with the initial sale. Once the UDCP is attached to the cable network and begins to receive cable's services, that product must continue to receive CE support, at least minimally with repair of known defects.

Self-Verification Testing Is Flawed. In the one-way agreement governing the development of UDCPs, compromises were made at the behest of CE manufacturers to allow them to employ self-verification testing for their products, as opposed to full certification testing. Full testing is required for other products that will be connected to the cable network such as DOCSIS cable modems, PacketCable/Voice over IP ("VoIP") devices and other interoperable cable devices. The lessons learned from the success of full certification testing for DOCSIS modems, and the failure of the self-verification scheme with UDCPs, are borne out in the problems the cable industry is encountering with UDCPs.

We hope to address this flawed self-verification testing regime and implement a more thorough approach in any future agreements with our CE partners. Currently, CE companies are using their consumers (who are also the cable industry's customers) and the private cable plant as a virtual "beta" testing environment, instead of adhering to a proven testing methodology. Additionally, CE has provided no feedback from their field experience to the Joint Test Suite process, in order to enhance and improve the Verification/Self-Verification tests to incorporate issues and resolutions that they encounter in the field. The CE industry has blocked any attempt by the cable industry to make clarifications or to correct known issues in the JTS. Among other problems with the approach, it has the potential to disadvantage any new competitive CE entrant.

More Stringent Testing of UDCPs is Required. One way to minimize problems consumers have with UDCPs is to assure that these problems are discovered before the UDCPs are installed in the consumer's home. The only way to do this is to have a more stringent testing regime than the self-verification regime which exists today. For example, unlike the case with UDCPs tested under the JTS, the CableLabs OpenCable host testing process includes a more extensive testing of the CableCARD interface, as well as of minimal functionality of the host devices, in order to receive CableLabs certification.

Interoperability among CableCARDS, UDCP devices and the cable plant is not a trivial matter and is better addressed through a testing regime similar to that for DOCSIS cable modems. In 1999, CableLabs began testing and certifying DOCSIS cable modems. Since the inception of DOCSIS certification wave testing by CableLabs, 42 successful certification waves have been performed, resulting in certification of 419 different cable modem models from 78 manufacturers. One only need visit a local consumer electronics retailer to witness the success of this program. Since 2001 until the end of 2005, cable modem penetration in the United States has increased from 5.5 million units in service to over 25.4 million.²¹ Consumers are able to visit retail stores, purchase a cable modem of their choice and in many cases perform a self-

²¹ <http://www.ncta.com/ContentView.aspx?contentId=59>.

installation that works virtually every time. This program has been highly successful due in large part to a thorough certification testing process at CableLabs, ensuring that all products purchased by consumers or leased from their cable company are fully compliant with standards and specifications required to operate on cable networks. Significantly, while there are approximately 170,000 CableCARD devices in operation and over 25.4 million DOCSIS cable modems deployed, the amount of time and resources required to support UDCP devices far outweighs the resources required to support DOCSIS cable modems.

It is critical that in future agreements between the cable and CE industries the issue of interoperability testing be properly addressed in order to largely mitigate the problems that the cable industry and CE manufacturers are encountering today. In particular, OCAP devices must be subjected to thorough and complete certification and interoperability testing as interactive Digital Cable Ready (“iDCR”) products will be significantly more complex than UDCRs.

The Sony Testing “Solution” is No Solution. Cable operators are not alone in pinpointing the current testing regime as a problem. Recently, Sony Electronics addressed the “discrete subject” of “interoperability testing” for two-way digital cable ready products which, it noted, had been the subject of negotiations between the cable and CE industries.²²

We agree with Sony that thorough and extensive testing will be needed in order to deliver to the consumer a quality two-way digital cable ready product and we welcome Sony’s recognition that CE manufacturers must share the cost of funding the necessary test facility.²³ This promises a significant improvement over the testing applied to UDCPs, under which manufacturers insisted on the right to field any device as “self-verified” after only one predecessor device has passed a truncated test suite. We also agree with Sony that testing can present challenging issues, although they are not so daunting as Sony would suggest.

Nevertheless, while Sony asks for “the level playing field necessary to ensure the development of a truly competitive market for navigation devices,”²⁴ Sony’s testing proposal is anything but level. Sony would forbid cable operators from launching new cable services without advance approval by CE manufacturers.²⁵ Despite Sony’s invocation of the CE industry’s favorite lobbying slogan (“common reliance”) in support of its testing proposals,²⁶ the Commission has already found that such a proposal would be neither warranted nor acceptable:

It is not our intent to force cable operators to develop and deploy new products and services in tandem with consumer electronics manufacturers. Cable operators

²² Letter from Jim Morgan, Sony Electronics Inc., to Marlene H. Dortch, FCC, CS Docket No. 97-80, January 30, 2006 (“*Sony letter*”).

²³ *Id.* at 7.

²⁴ *Id.* at 5.

²⁵ Sony’s proposal would provide the CE industry a 50% veto over any approval of any new cable service. *Id.* at 8.

²⁶ *Id.* at 16.

are free to innovate and introduce new products and services without regard to whether consumer electronics manufacturers are positioned to deploy substantially similar products and services.²⁷

The CE industry has partnered with telephone, DBS, and Internet companies that are rapidly launching new video services and competing with cable operators for content and customers with little or no regulatory constraints, and certainly no mention of “common reliance.”²⁸ In contrast, Sony would deny the cable industry any role in defining the tests required for “digital cable ready” devices that attach to the private cable network, interact with the cable headend, and render the cable service with which cable operators are supposed to compete with telephone, DBS, and Internet-delivered services.²⁹

Cable Receives Minimal Feedback from CE Manufacturers. The lack of structured communications and an effective feedback loop from CE companies to the cable industry has caused a multitude of problems for consumers. There is no mechanism for the cable industry to discover known issues with CE host devices as CE companies become aware of them. The only mechanism for the cable industry to discover problems with UDCPs is during installation in consumer homes, or later calls from our customers to cable customer service representatives.

The CE industry as a whole has refused to establish something as simple as a webpage to address these issues and leaves it to individual CE companies to escalate known problems to cable operators on a case by case basis, if and when it is done at all. In the meantime, consumers are left in the lurch having no way to discover that their television set may be defective either because of incorrect software/firmware or a known manufacturing deficiency which could be something as simple as a bad solder process or bent pins on a UDCP’s CableCARD interface. Additionally, there is no centrally located source for version information on the CE manufacturer’s equipment. In many instances, the cable operator is required to attempt a CableCARD install and then contact the manufacturer to get an update for the DTV before continuing with the installation. Very few CE manufacturers take the initiative by notifying customers or cable operators of new releases for devices which have known problems.

²⁷ *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, Second Report and Order, 20 FCC Rcd 6794, 6809, ¶ 30(2005).

²⁸ For example, AT&T’s video service relies upon a leased proprietary set-top with integrated security. DirecTV no longer supports multiple retail models of set-tops and has shifted retailers into providing only leased proprietary set-top with integrated security. EchoStar also requires use of its own proprietary set-top with integrated security. None are interoperable should consumers wish to switch providers. None of these set-tops are built into DTVs.

²⁹ *Sony letter* at 8 (“the hardware test suite shall be designed and administered by representatives of device manufacturers”). This proposal reverses specific representations made in the December, 2002, one-way Memorandum of Understanding by Sony and CEA that advanced digital cable ready devices would be subject to a higher level of compliance and interoperability testing than one-way products. MOU ¶4.2 found at *Implementation of Section 304 of the Telecommunications Act of 1996*, CS Docket No. 97-80, *et al.*, Further Notice of Proposed Rulemaking, FCC 03-3 at Appendix B (rel. Jan. 10, 2003).

Better Cable-CE Coordination Is Required. There have been many instances where CE manufacturers have been aware of problems with their UDCP products but have failed to notify consumers or cable operators of those problems. We recognize that CE manufacturers may be reluctant to disclose problems with their products to their competitors in a joint forum or web page, but it is critical that some type of forum be created for reporting known issues to cable operators – and to consumers. CableLabs’ and NCTA’s repeated efforts to develop such a formal process have been rebuffed by CE companies and CEA.

Conclusion

CEA’s recent *ex parte* filing attributes all consumer frustration with CableCARD-equipped television sets to the lack of “common reliance.” In fact, where issues have arisen, CE manufacturing problems have led to the majority of the customer frustrations with CableCARD-equipped DTV sets. The lack of “common reliance” cannot be the reason why one manufacturer’s CableCARD-enabled DTV does not work properly with a CableCARD when the DTVs from other manufacturers work perfectly using the same CableCARD on the same cable system. The culprit, we submit, is “self-verification” that results in models of CableCARD-enabled DTVs not being properly tested.

It is mere posturing to attribute all CableCARD problems, and their solution, to a lobbying slogan such as “common reliance,” rather than to holes in the self-verification process. And it is particularly hard to understand the CE industry’s criticism of cable’s efforts to support CableCARD-enabled devices and retail availability of such devices, when it gives cable’s competitors, particularly DBS, a free pass on “common reliance” and its other “cable-only” demands. It is particularly ironic that it does so at a time when the cable industry provides more support for portable, commercially-available products from more manufacturers than does DBS, let alone telephone providers of cable services.³⁰

The cable industry wants UDCPs to work properly. Their owners are our customers, too. To that end, we hope this filing restores some balance to the understanding of UDCP problems and offers some insight into how the cable and CE industries can work together to provide a better experience for the consumers who use those products.

³⁰ “Cable CTOs Say OCAP Set-Tops Are Coming,” *Cable Digital News*, June 23, 2006, available at http://www.cabledatacomnews.com/weekly_analysis/06223006_01.html. (“Ironically, the cable industry is moving to make its digital set-tops more retail-friendly for consumers at the same time that the more retail-oriented satellite TV industry is adopting the traditional cable model of leasing gear to customers.”)

Ms. Marlene H. Dortch
June 29, 2006
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If you have any questions about the information being submitted with this letter, please do not hesitate to contact me.

Respectfully submitted,

/s/ Neal M. Goldberg

Neal M. Goldberg

cc: Donna Gregg
William H. Johnson
Rosemary Harold
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APPENDIX A

OPERATOR RESPONSES TO CEA CABLECARD ANECDOTES

Adelphia Cable's Response to CEA Ex Parte

Example 2

(From CE document, "Collected DCR Field Examples032306.pdf")

On August 27, 2005, a customer on an Adelphia cable system (Motorola head end) in Urbana, Maryland, called TTE customer service complaining of missing channels. TTE customer service instructed the customer on resetting the CableCARD, but the channel list was still incorrect. The customer made an appointment for an MSO service call. On September 7, 2005, the MSO also attempted to reset the CableCARD, but with no success. The MSO reset the customer information at their head end, and the customer was successful in receiving their subscribed channels. Even over one year after MSOs were required to support CableCARDS, MSOs are still having trouble correctly configuring customer information in the head end and billing systems to successfully authorize service. If common CableCARD reliance were required for cable set top boxes, the MSO customer service would be familiar with configuring the head end equipment for support of CableCARDS.

Adelphia's Response to the CE Ex Parte

The one incident reported against Adelphia concerned "configuring customer information in the headend and billing systems."

Initial order entry into the subscriber billing system requires significant manual input as customer service representatives translate extensive verbal information from the customer into specific service levels, equipment types, and rate codes. While Adelphia attempts to minimize data entry errors through comprehensive training and system validations, errors occasionally occur and can lead to incorrect services delivered to a device. Such errors are device independent, *i.e.*, set-tops and CableCARDS are equally susceptible to and impacted by such errors. In these cases, remedial action is necessary to correct the initial data entry error. Upon discovery of such an error, a customer service call is made to re-validate the service level(s) and the box or card is "refreshed."

Adelphia strives to enter orders as accurately as possible, but we acknowledge that there are opportunities for data entry errors which may cause service level impacts. Such errors are not specific to CableCARDS and can similarly affect customers using set-top boxes. Common Reliance would not improve this situation.

Bright House Network's Response to CEA Ex Parte

Claim: SA Session Layer Lockup and resolution. TTE claims that a fix to this problem was available from SA in July 2005, but TTE could not perform testing in BHN Indianapolis system until October 2005

Response: BHN Indianapolis had over 450 CableCARD customers by July 2005 and none of them were experiencing or reporting the "Session Layer Lockup" problem described by TTE. BHN weighed the risk of disrupting services to those paying customers against the need to support the TTE lab out of good will. BHN decided against a global download of the software patch since TTE and others were already testing this fix elsewhere. In October 2005, Bright House Networks provided TTE with 2 CableCARDS with the code patch and 10 more in 2006 to further assist with their lab testing.

Claim: SA CableCARD, firmware upgrade problems in the BHN Indianapolis system

Response: BHN has successfully conducted numerous code downloads to CableCARD Hosts from other manufacturers, as well as TTE, in both BHN lab facilities and in subscribers premises and BHN has not experienced any problems performing these upgrades. The failed incidence referenced by TTE is for a Host in either the TTE lab facility or a TTE employee's home.

Charter's Response to CEA Ex Parte

Smyrna, Georgia

The gap between what CEA is telling the FCC and what it says outside the beltway is immense. In the JVC submission to the FCC, David Kline tells the FCC in 48 point type that the experience of the first CableCARD subscriber in Smyrna, Georgia--a JVC Service Center Supervisor – was a “bad omen.” He criticizes the system because a CableCARD had “suddenly appeared” after Mr. Kline asked for the installation during a temporary card shortage. Mr. Kline reports 7 visits by technicians trying to get the JVC set to receive premium services, after which the JVC employee returned the set to JVC.

Mr. Kline's reports outside the beltway tell a different story. Well over 14 months ago, Charter did have a temporary shortage of cards caused by a delivery problem. Yet at Mr. Kline's request, Charter obtained one for the test. According to interviews with the cable service technician, the JVC Service Center Supervisor believed that the problem was with the JVC TV. In Mr. Kline's February 2005 emails to Charter, Mr. Kline thanked the system for working so cooperatively with JVC on what he called a “test.” “We at JVC really appreciate your time and effort in making this test possible. ... It is always a learning experience when rolling out a new technology, especially when it is a complex interoperability between local cable operators and a wide variety of CE products. I am sure we all look forward to the not too distant day when all these rollout issues are resolved, and we both have happy customers.” By March, Mr. Kline sought out Charter's Don Watson during a CEA standards meeting and expressed his appreciation to Charter and the local technician working on the CableCARD issue with JVC's employee. According to Charter's billing records, the subscriber did not replace a card with a set-top – he disconnected all cable service, presumably because the test was complete.

Mr. Kline also questions the value of CableLabs certification, if such field problems can possibly arise on a certified DTV. The test suite used for “plug and play” UDCP TVs was a watered down, negotiated test suite and is NOT as extensive as the test suite that the cable industry uses for certifying OpenCable set-tops or for its own leased set-tops. It is a very limited verification test, because CE manufacturers like JVC would not accept comprehensive testing for UDCPs. Instead, CE manufacturers insisted that certification tests be curtailed to far more limited verification tests, and then that manufacturers be permitted to self-verify their testing and send post card reports to CableLabs when they believed they were done. The consequences of scaling back such tests is that one manufacturer's CableCARD-enabled DTV does not work properly with a CableCARD when the DTVs from five other manufacturers work perfectly using the same CableCARD on the same cable system. It is not the lack of “common reliance” that leads to such manufacturing problems.

Charter's Response to CEA Ex Parte

Godfrey, Illinois

The TTE (RCA) anecdote begins with an RCA customer unhappy with his Christmas, 2005 purchase of an RCA TV with “snowy” reception. TTE shipped a replacement chassis January 11, 2006, and (after a 3 week delay) installed the replacement for the customer on February 1. At this point, TTE reported “noise” on QAM channels received in the clear by the RCA TV. This is difficult to credit. A QAM channel will not be “noisy” – it will be present or not. Charter’s diagnostic practice is to verify that forward and return signals are within acceptable parameters and return the card to the warehouse for testing. From the sketchy information provided by RCA, the problem was in the RCA set and not with the plant, because the set-top box was obtaining lock on the channels but the TV was not.

The anecdote concludes that if “common reliance” had been required, the RCA TV would have obtained channel lock. This makes no sense: the manufacturer of the set-top was able to obtain channel lock from the same OOB on the same plant with the same alleged “noise.” The RCA could not. That is neither a plant nor a card problem. It is an RCA manufacturing problem.

“Charter in Oregon”

Sony tells an anecdote claiming that an unidentified Charter system in Oregon refused to install a card for an unidentified customer on a Sony DTV that was not on a certified list. This is wrong on two counts. First, Sony complains that use of a certification list “has many problems.” In fact CE manufacturers are *required by FCC rule* to report self-verified DTVs to CableLabs to assure some documentation of compliance testing. Although Charter could reasonably insist that Sony do so well before their TVs appear in consumer homes, Charter follows a more liberal practice. It instructs its technicians to try at least two cards before escalating the issue within Charter. Only two dispatchers and their supervisor keep the current list of certified or verified DTVs, which they use for diagnostic and troubleshooting purposes. In this case, Sony had the new 72” set added to the list within 4 days of their call. Second, and more important, the very Sony TV at issue is one known to have an intermittent problem. At least 7 cards were tried by this system on this customer’s model, but all encountered the known issue with this Sony model. The problem is occasional loss of all digital channels on this model, but it does not occur on all TVs. This is also a known issue at Sony. After troubleshooting and reset by the cable technician, the prescribed service remedy is to call the Sony 1-800 number and “report the ‘loss of digital channels issue,’” after which Sony will arrange a service call. This is obviously a DTV manufacturing problem, and not one of CableCARDS or lack of common reliance.

Charter's Response to CEA Ex Parte

“Charter AZ”

The Toshiba call center reports a call from a Charter employee trying to help a customer with a Toshiba TV. Charter assumes that Toshiba means to refer to New Mexico, where Charter actually operates. Neither the date, customer, system nor the specific model of the many possible Toshiba DLPs is identified. It is not possible to determine what the report is reporting about Charter. Toshiba was able to solve the TV problem by hitting the TV with an initialization signal that is not available from a cable headend. The remainder of the report reflects some “superb” troubleshooting cooperation and some that Toshiba finds frustrating, but none of it involves Charter.

Comcast's Response to CEA Ex Parte

The consumer electronics (“CE”) industry grossly mischaracterizes the situation with respect to the use of CableCARDs in Comcast cable systems. The extent of the difficulties is vastly overstated, and the source of difficulties is falsely portrayed as attributable exclusively to Comcast when in fact the problems are caused as much or more by failings on the part of CE manufacturers.

As to the scope of the problems, the key fact that CE omits is that the vast majority of our CableCARD customers are not experiencing any problems with their CableCARDs. Comcast has over 76,000 CableCARD subscribers and has received complaints from only a very small percentage of those customers. In short, our experience has been that the CableCARD technology is working in most CableCARD-enabled devices (“Host Devices”) today.

Furthermore, Comcast expends considerable resources on CableCARD deployments. Consistent with the Commission’s rules, we purchase an adequate supply of CableCARDs and ensure that those CableCARDs will work in our digital cable systems. We also invest substantial resources in training our technicians on CableCARD implementations. The overwhelming majority of our CableCARD installations are performed by Comcast technicians, and those technicians are responsible for installing CableCARDs in a wide range of Host Devices from multiple CE manufacturers.

As noted, most CableCARD installations are successful. To the extent there have been CableCARD-related problems, Comcast’s experience has been that a large number of those problems are attributable to design flaws in the Host Devices – flaws that “common reliance” would do nothing to remedy. Comcast provides more detail on problems with specific Host Devices below, but highlights here the most commonly-encountered issues with Host Devices:

Software Upgrades: Even fresh “out of the box,” many Host Devices require a software upgrade before they will operate properly with a CableCARD. In spite of repeated requests from Comcast, many CE manufacturers refuse to make available a list of Host Device models identifying the required software version for each model. As a result, Comcast must ferret out this information through long and painful calls to the manufacturer, often with the customer caught in the middle. Manufacturers often take an initial position that any problem is with the CableCARD or the cable system and only after repeated efforts will they admit to their Host Devices needing a software upgrade.

Comcast's Response to CEA Ex Parte

Installation Delays: Comcast technicians spend far more time in the customer's home on CableCARD installations than on typical set-top box installations, often needing to visit the home several times before the installation is complete. This extra time is almost always due to the Host Device in some way. Aside from the software upgrade issue referenced above, technicians also need detailed technical information on each Host Device in order to make a proper installation. To date, a total of 459 Host Device models from 24 different CE manufacturers have been certified, verified or self-verified by the CE manufacturer (mostly self-verified). The menus and settings in these Host Devices vary considerably, and Comcast is often unable to get CE manufacturers to provide the necessary technical information on different Host Device models.

Communication Issues: Comcast places a high priority on making Host Devices work in our cable systems. The last thing we want is an unhappy customer.

Consequently, when problems do arise, we have worked with CE manufacturers to resolve CableCARD-related issues as quickly – and with as little inconvenience to the customer – as possible. Unfortunately, Comcast's experience has often been that CE manufacturers seem more intent on casting blame than rolling up their sleeves and working with us, CableLabs, and our CableCARD suppliers to find workable solutions. Where CE manufacturers have worked with us, more often than not we have developed the necessary fixes in short order. Where, in contrast, they have refused to cooperate with us, problems have gone unresolved for longer periods of time.

For example, many CE manufacturers respond to our calls for help by suggesting that we try as many as 10 or more different CableCARDS hoping to find one that works with their Host Devices. Comcast technicians are frequently told that some CableCARDS are “just not compatible” so many need to be tried. In fact, as noted, we have seen very few cases where the CableCARD itself is the source of the problem. Either the Host Device needs a software upgrade or some other adjustment, or the Host Device simply does not operate on a consistent basis with the CableCARD. In the latter situations, trying different CableCARDS sometimes does result in a successful installation. *However, we find the same success rate from trying the same CableCARD over and over as we see from trying different CableCARDS.*

Comcast recognizes that, at times, it has been responsible for CableCARD-related problems. These issues can include something as simple as a customer service technician failing to understand the proper steps to be followed to successfully install a CableCARD in a particular model to a customer service representative making errors in the billing and provisioning process. However, when Comcast makes mistakes, it acknowledges them and fixes them. If our colleagues in the CE industry took the same approach, most of the problems they complain about in their filings to the Commission would be resolved.

Comcast's Response to CEA Ex Parte

A number of CE manufacturers made allegations regarding CableCARD-related problems in certain Comcast cable systems. Comcast was unable to investigate these claims given the lack of information about the specific customers involved. Even so, Comcast has had enough experience with several of the Host Device products referenced in the CE filings to know that, more often than not, the problems can be traced to design flaws in the Host Devices themselves, not Comcast. A brief sampling of Comcast's experiences with some of those and other Host Devices follows:

Toshiba Host Devices: Comcast technicians in one market have encountered CableCARD-related problems with three different Toshiba Host Devices. Those models would completely lock-up and reset when tuning to local broadcast stations. No other channel caused this reset and no other brand of Host Device had this problem in that market. Comcast technicians had to make several phone calls to Toshiba before the manufacturer would acknowledge an update was needed.

Hitachi Host Device: Comcast technicians responded to a customer complaint that the audio and video were out of synch on his Hitachi Host Device. The technicians replaced the CableCARD several times, but the problem persisted. The technicians then called Hitachi and were told the problem was due to the way local broadcasters transmit their signals and that the customer had the latest firmware. Further testing of the Host Device demonstrated that the Host Device, not the CableCARD, was responsible for the problem.

Sony Host Devices: There have been numerous reports of channel map-related issues with Sony Host Devices while other manufacturers' Host Devices are not experiencing the same problems. Unfortunately, Sony has been quick to blame Comcast for the issues but slow to work with CableLabs to find out what is really happening with its Host Devices. Sometimes, the Host Device finally starts working after we have repeatedly tried everything we know to try, and yet we have not identified any pattern or apparent root cause. Although Sony officials were very helpful early on in troubleshooting issues, they have more recently shifted to always pointing the finger back to the MSO. Comcast has suggested several times to Sony that we work together with CableLabs to identify the source of the channel map issues, but Sony has never responded to that suggestion.

LG Host Devices: Late last year Comcast technicians encountered several LG Host Devices that would not recognize a CableCARD. In initial cases, our technicians contacted LG and spent over an hour on hold as LG researched the issue. Our technicians were informed that an LG technician visit was needed and would be arranged by LG. LG technicians failed to show up at scheduled appointments at one customer's home on two occasions. LG finally acknowledged that there was a firmware issue with these Host Devices.

Cox Communications Response to CEA Ex Parte

Many of the manufacturers have stated that “common reliance” would allow us to better troubleshoot DCR devices. Nevertheless, a number of the issues that the CE manufacturers cite in support of this statement (*e.g.*, missing virtual channel maps) are issues that would not have been diagnosed by field service technicians. If similarly encountered with other products, Cox technicians would have escalated these issues within the system and, possibly, to our receiver manufacturers before finding the appropriate resolution.

We often engage CE Manufacturers during DCR troubleshooting due to the frequent need for firmware upgrades associated with these devices. We usually request that the customer initiate contact with the manufacturers. CE manufacturers do not generally provide any information regarding possible known issues with DCR devices. When the manufacturer discovers a problem, it often takes several weeks (and sometimes months) before it can provide a solution. In fact, we usually learn about most DCR firmware upgrade needs from retailers, rather than the manufacturers. In other instances, CE manufacturers have provided specific instructions regarding known issues, but later claim that no such problem exists when the customer calls their support lines to report the issue.

We have also been told by several manufactures that their DCR devices will only function on a specific version (version “X”) of a CableCARD device. Other manufacturers respond that their devices will not work with version X, but with the previous version of the CableCARD device firmware. Several manufacturers have also advised that we should attempt 5-15 different CableCARD devices on their DCR devices before the DCR device will function with and/or recognize the CableCARD.

These are issues that would more likely be resolved by improved communication and cooperation from the CE manufacturers rather than instituting “common reliance”.

Baton Rouge and LG:

In the past, uncertified DCR devices have been released to retailers. To avoid potential harm to the network, Cox began checking the list of certified Digital Cable Ready TVs as part of our standard installation procedures. This process has also assisted in identifying Digital Cable Ready TVs, as we have experienced past customer confusion despite the clear DCR markings.

This particular CableCARD device request was submitted on 2/22/06. When the request was addressed, our CSR verified the brand name and model of TV. When she referenced the Certified List of DCRs from CableLabs, the model information was not present and thus the customer was informed that we would not be able to provide service. Our CSR then received a voicemail from Joe Cobia, an Account Executive with LG Electronics who stated we were required to set up installation for the CableCARD device for our customer.

Cox Communications Response to CEA Ex Parte

The CSR contacted our corporate offices and the issue was further researched. CableLabs was contacted and we learned that the model had been inadvertently omitted from the CableLabs list. Baton Rouge was immediately notified of the error in the list. On 3/7/06 Cox contacted the customer and set up installation for the CableCARD.

Since implementing this procedure, this is the only instance that we can recall where a DCR device was certified, but was absent from the CableLabs list. The absence of the LG TV from the list was a clerical error, not due to Cox personnel.

We also wish to avoid inconveniencing our customers and have, therefore, reevaluated our procedures regarding installation. We will now determine device certification without immediately interfering with the install process. Going forward, all customers will be initially approved. However, if a CSR finds that the CE model is not included on the list, the CSR will contact corporate operations for further approval. The install process will only be interrupted if corporate operations cannot confirm that the device has been certified.

Omaha and LG:

LG Electronics reports an increase in CableCARD device issues in our Omaha System during the mid-2005 time frame. During that time, we were concerned about an increase in trouble calls concerning several manufacturers. While attempting to troubleshoot issues, CE manufacturers reportedly told Cox Omaha and one of the area's major retailers that the DCR devices were not functioning because Omaha is an HRC system, which hindered progress on determining the actual issues. Instead, Cox Omaha had to schedule several meetings with the retailer to attempt to prove that the CE devices were required to work with HRC systems.

We do not believe that the issues reported by LG were completely and specifically related to our OOB Frequency. While LG reports widespread problems in our system, only the West hub, where the OOB frequency was set at 104.15, was actually out of spec. Historical information shows that the West Hub had been at that frequency since late 2003. Thus the problems described by LG did not result from a sudden offset tuning problem. This problem would have been consistent in the area since the launch of CableCARD service in 2004.

In early January of this year we encountered a major issue that impacted a large number of customers. During troubleshooting, Omaha changed the frequency to 104.20 on February 2nd. Although the frequency was returned to 104.15, it wasn't until late February, that we were informed there was an issue in the field. On the 21st of February, Cox Omaha worked with corporate engineering to retune the West hub OM to 104.20. No modulators were repaired or replaced, as was reported. No other frequencies were adjusted.

Cox Communications Response to CEA Ex Parte

To further illustrate that the OOB issues was not likely driving most of the Omaha problems as reported, Omaha install trouble call rates for CableCARD devices are provided below. Our trouble call rates for installs spiked during that month when the OOB frequency was corrected. We also would expect that there would be a decrease in issues once the OOB was corrected, but the trouble call rate only returned to previous levels.

Dec	Jan	Feb	Mar
36.76%	49.23%	53.72%	46.15%

We should also note that that the types of issues actually experienced by the Omaha system were similar to issues experienced at other Cox systems and across other MSOs. Many of these issues were later fixed with DCR device firmware upgrades. However, we have instituted reporting that will allow us to monitor frequencies in an effort to ensure that the proper OOB frequencies are maintained.

Kansas and Toshiba:

The Cox Kansas system has encountered numerous problems with Toshiba related CableCARD installs, which began in November 2005. A majority of the Toshiba DCR sets have generally displayed the same symptoms. In our experience, the CA state of the DCR TV rarely shows “connected.” During an install, the CA state is displayed as “unknown” and generally stays that way until it changes to “disconnected.” We are able to confirm that the CableCARD device does see the out-of-band signal (loads the VCM from the DAC).

Kansas has worked with a Toshiba Rep (Name can be provided) to address a majority of these occurrences. The problem continues to reoccur a day or a week later, so the issues have not yet been resolved as was indicated above.

Recently Toshiba informed Kansas of a fix for the acquiring channel problem. Kansas has used this fix twice and it has worked on both sets thus far. However, we haven’t been able to confirm the long-term efficacy of this workaround. In addition, the workaround did not address additional problems with Toshiba DCR TVs such as the HD channel tiling issues (signal is within specs at the TV), or the clicking audio problems on most digital and HD channels.

Toshiba has informed our Kansas system that other systems were having this same problem. Their rep has also stated that their engineers are working on a fix, which should be available in about 3 months, and should address most, if not all, of these problems.

Cox Communications Response to CEA Ex Parte

We have been unable to confirm the specifics of the instance specified in the complaint; however it should be noted that our troubleshooting procedures include checking all pairing information and billing information, as well as many other requirements, prior to escalating the issue to the manufacturer. However, due to the large number of issues the system has experienced with this manufacturer, Kansas personnel concedes that it may have mistaken the symptoms for the known issues that they have been working with the manufacturer to resolve since last year. We feel this one instance does not compare to the multitude of issues encountered with this manufacturer.

Time Warner Cable

Responses to Specific CE Complaints

Sharp – Various Systems

Allegation: Sharp alleges that its sets are displaying an error message due to Scientific Atlanta CableCARDs in TWC systems sending out an invalid defined channel map (“DCM”). Sharp indicates that this information was captured by using an HPNX tool.

Response: Scientific Atlanta has conducted an inspection of their software code and has failed to identify any scenario in which an incorrect DCM could be sent out. Scientific Atlanta is attempting to capture the same information as Sharp using an HPNX tool. Sharp continues to blame this problem on the CableCARD, despite the fact that no other CE devices exhibit this behavior. On May 4, 2006 Sharp asked us to notify customers to download the newest software versions for their sets, which failed to fix the problem. We continue to investigate this problem. We disagree, however, that this problem is necessarily due to “incorrect system operation” or a “flaw in the CableCARD.”

JVC – Columbus, Ohio

Allegation: JVC alleges that two subscribers in TWC’s Columbus, Ohio division – “Jim M.” and “Jeremy T.” – had multiple problems with CableCARD installation on their JVC set.

Response: In the summer and early fall of 2005, TWC’s Columbus division noticed that a number of subscribers (including Jim M. and Jeremy T.) with JVC digital cable ready receivers were experiencing similar problems, such as intermittently dropping out channels. During this time frame, TWC technicians undertook extraordinary efforts to troubleshoot these difficulties with the subscribers including, as a precautionary measure, swapping out CableCARDs. In September and October 2005, JVC made a new firmware version available to its customers, of which TWC informed existing and subsequent subscribers experiencing these problems. Unfortunately, this update did not alleviate the problems for all of JVC’s customers.

In response to being notified of these problems in October 2005, JVC contacted TWC’s Columbus division asking them to check the firmware version running on the affected subscribers’ devices, which we did.

In October and November 2005, subscribers with JVC digital cable ready receivers experienced recurrences of the earlier problems with dropping channels and contacted both JVC and TWC. There was no specific pattern to the loss of service as subscribers would lose channels on different dates. In fact, no two subscribers (or a test set at our Columbus lab) ever lost services on the same date. Despite these widespread problems, JVC reportedly told Jeremy T. that the problem was with his CableCARD.

Time Warner Cable

Responses to Specific CE Complaints

During this timeframe, TWC technicians made a number of service calls to troubleshoot the problems subscribers were having with their JVC sets, verify signal levels, and, as a precautionary measure, swap out CableCARDS. In November 2005, JVC made another firmware update available to its customers, which again failed to resolve many problems.

On December 1, 2005 – almost three months after subscribers in the region began experiencing these problems – JVC representatives first paid a visit to the Columbus division's lab to inspect the JVC test set which had been experiencing the same problems. Unfortunately, it was impossible to recreate the problem while JVC representatives were in Columbus.

Later that same month, a JVC representative returned to Columbus to further investigate the problems with their product. Since their earlier visit, they had connected a laptop to the set to capture data if any errors occurred. Due to technical problems with the laptop, this data was not captured. On this visit, however, the set was in a failed state. The JVC representative was unable to determine what was causing the problem or what he would need to do to correct it. We observed that the set's forward data channel was no longer locking onto the signal, even though the signal was present.

From December 2005 to January 2006, subscribers continued to experience difficulties with their JVC receivers and TWC technicians again attempted to troubleshoot their problems. Jeremy T. indicated to our technicians that rebooting the set seemed to be the only solution, albeit a temporary one.

On February 13, 2006, JVC notified us of a fix for the problem in the form of a firmware update (f16e). On February 27, 2006 the update was received in our lab and installed – since that date the test set has not experienced any problems. Indeed, nearly all of the TWC subscribers who experienced difficulties with their JVC sets had their problems resolved by the f16e firmware upgrade. However, two subscribers have reported ongoing problems. For example, although Jeremy T. did not experience any problems for approximately three weeks after the firmware upgrade was installed, he again lost service which necessitated a service call on April 4, 2006. After rebooting the set, swapping out the CableCARD, and some further troubleshooting, the technician left with all the subscriber's channels working. However, another customer reported to us on May 1, 2006 that JVC's most recent firmware update has yet to fix his ongoing problems. We continue to monitor our subscribers experiencing ongoing problems with these JVC sets, and have Scientific Atlanta looking into the issue as well.

Time Warner Cable

Responses to Specific CE Complaints

As reflected in this summary, there was an immense amount of troubleshooting done by TWC as part of our commitment to our subscribers. In contrast, JVC took approximately three months from the first reporting of this problem to come on site, and approximately seven months to find a work around. Given that the f16e firmware update by JVC seems to have solved the issue in most cases, we believe that the underlying problem is a result of the device's firmware.

Toshiba – Kansas City, MO

Allegation: Toshiba alleges a problem with CableCARD-enabled receivers not working in Arrowhead Stadium due to “changes in the cable system” and implies that other customers are experiencing the same problem in the Kansas City area.

Response: When notified of this alleged problem, TWC sent a technician to Arrowhead Stadium on March 30, 2006 who went through our normal trouble shooting steps and was unable to find anything wrong with the cable line to the sets. However, once the sets' diagnostic screens were checked, they indicated that the firmware on the sets was in need of updating and the subscriber was provided with a firmware update by Toshiba. Since the update, the sets have worked and we have not received any further complaints on this issue. We are aware of only one other account in which this problem has come up and in that case the subscriber indicated to us they would obtain the firmware update from Toshiba. We have had no complaints on this issue since late March 2006. As a result of these experiences, TWC believes that the underlying problem was old versions of the Toshiba set's firmware.

TTE Technology – Syracuse, NY

Allegation: TTE Technology alleges a problem with certain digital cable ready televisions in Time Warner Cable's Syracuse, NY division resulting in all encrypted channels becoming non-viewable and the CableCARDS installed into such sets becoming non-responsive to requests to display status information.

Response: Time Warner Cable (“TWC”) first became aware that a handful of subscribers in Syracuse were experiencing this problem in February 2005, at which point we notified TTE. While discussions were ongoing with TTE, the affected subscribers were able to temporarily resolve the issue by resetting their CableCARDS. Once informed of these difficulties by TWC, Scientific Atlanta (“SA”) participated in a joint trip in June 2005 with CableLabs and TTE to Syracuse to investigate. Despite TTE's claims that this problem was caused by a “Transport ID=0 issue,” SA determined that the secure access module within the CableCARD was incorrectly updating the sets' channel maps, causing the CableCARD to reset. SA created a software patch to the CableCARDS to remedy the situation, which became unnecessary in Syracuse as the situation resolved itself once split channels were discontinued in that division. Since then there have been no reported recurrences.

Time Warner Cable

Responses to Specific CE Complaints

Sony – System Unknown

Allegation: Sony alleges two sets of problems, the first with customers not being able to view any cable channels after CableCARD installation, and the second with customers not being able to view specific analog stations.

Response: We are unable to respond to Sony's allegations given their lack of specificity on where these alleged problems have occurred. We would be happy to investigate if given more detail.

TWC Complaints re: CableCARD Devices

Philips - Columbus, OH

March 2006: A subscriber in TWC's Columbus, Ohio division contacted us to complain about the recurrence and worsening of a problem he had experienced several months prior involving the loss of some analog channels, encrypted digital channels, and in the clear HD local channels. TWC contacted a representative at Philips to discuss the issue, who indicated that the problem could result from the set's inability to determine the defined channel map due to the multiplexing of streams by the local CBS affiliate. This issue was also discussed with representatives from CableLabs.

March 24, 2006: CableLabs notified us that the Philips device supported SCTE 65 profile 2 and not profile 1. All UDCP devices are required to support profiles 1-6 as part of the CableLabs Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma which is incorporated by reference in §15.123(c)(1)-(3) of the Commission's rules. If a device only supports a minimum of profile 2, no channel map changes will be detected or implemented by the device if the cable system is supporting profile 1. This is a clear failure on the part of Philips to conform to the Commission's rules.

March 31, 2006: TWC followed up with Philips to see if they had reached any resolution on this matter, to which they replied that there was not.

April 4 - 5, 2006: Philips requested information regarding some TWC procedures relating to channel map changes, and we had a conference call with Philips to discuss them.

April 19 - 20, 2006: Philips sent one of their sets to be tested at our Ohio lab and sent a representative to assist in testing as well. The set exhibited the same problems as our subscriber's set, despite conducting the test with two different versions of firmware on the device. The test data was recorded by the Philips representative. During this testing, an error message occurred on the set stating that a technical problem was preventing the set from receiving all cable services and to please contact the cable operator. While a technical problem was indeed occurring, this was entirely attributable to Philips as they failed to abide by required specifications. The error message is misleading to our subscribers in suggesting that the technical problem is our fault.

This problem has yet to be resolved. We are awaiting the review of the recorded data by Philips engineers.

TWC Complaints re: CableCARD Devices

Sony – Various Systems

A number of our systems have been asked to troubleshoot Sony sets which have displayed the “161-4” or “161-6” error codes. These errors, which result in the display going blank, are apparently due to a faulty component in certain Sony DTVs. Despite initially blaming cable operators and CableCARD manufacturers, Sony now seems to acknowledge that this problem was with their devices. For example, Sony’s eSupport website indicates that:

Sony eSupport Knowledge Base

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Knowledge Article C200609

A 161-6 error occurs when using a CableCARD™ device.

Service will be required to resolve this issue.

Created: Thu Dec 08 08:03 2005 | Last Modified: Tue Apr 04 13:42 2006
<http://www.iq.sony.com/srvs/autoresponsev4.asp?id=200609>

Additional information on this issue can be found at:

<http://www.iq.sony.com/srvs/autoresponsev4.asp?id=235002>

APPENDIX B

THE UDCP ISSUES LIST

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THE UDCP ISSUES LIST

The cable industry began preparing for the launch of Unidirectional Cable Ready Products (“UDCPs”) in mid-2003 upon finalization of the one-way Plug and Play agreement for development, testing, deployment and support of UDCPs. Preparation included: education for field technicians, CSRs and operations managers responsible for digital products; modifications to customer care and billing systems; development of consumer education and marketing materials; upgrades to digital control systems, and assignment of specific management and technical personnel to ensure effective and proactive support was in place for the July 2004 launch.

Attempts at Coordination. Beginning in July, 2003, the cable industry established a “UDCP Implementation Team” to prepare for the launch of UDCP products. Meetings and conference calls were attended by senior personnel from cable multiple system operators (“MSOs”), NCTA, and CableLabs. Business and technical team subgroups were created to ensure that all aspects of support were fully developed. As the business aspects of UDCP product deployment became solidified, it was clear that a dedicated team of technical experts should be established to support these products at the corporate level of each MSO, supported by staff from CableLabs and NCTA.

In October, 2003, the “UDCP Technical Team” was established. It is comprised of MSO senior technical representatives and CableLabs and NCTA personnel. This team was chartered to prepare for the July 2004 launch of CableCARD-enabled products and provide ongoing support. It does so with weekly calls in which participants share best practices, technical and operational information, issues with CableCARDs, “Host Devices,” cable plant configurations, and any related matters. MSO representatives that participate in these weekly calls work at the corporate level and have established internal business processes to communicate with their respective divisions on all issues that surface related to CableCARDs and UDCPs. This collaborative effort has greatly increased the cable industry’s ability to respond to problems in the field, and is used as a knowledge base and “tiger team” for the industry on all issues related to UDCP products, CableCARD devices, plant configuration, business process support, communications with the CE industry, collaboration with CableLabs for testing, and troubleshooting support. The team continues to hold weekly conference calls and has established an email “reflector” to surface issues immediately on an interim basis between calls.

In June, 2004, NCTA and CEA, and many of their respective member companies, established a working group as a joint forum to share information on UDCPs and CableCARDs. In an effort to ease deployment and field support of this new technology, the group jointly developed a “CableCARD troubleshooting guide” and a “Consumer Information Reference Paper” for use by CSRs from both industries. These documents were intended to assist in understanding basic troubleshooting techniques and the capabilities of UDCPs and CableCARDs, as well as to provide jointly agreed upon consumer messaging. Additionally, NCTA and CEA shared high-level technical contact names, emails, and phone numbers at both MSOs and CE companies to facilitate a rapid and direct escalation mechanism between the

respective organizations as problems were encountered. For approximately one year, the group held monthly conference calls with the goal of mitigating issues that consumers, the cable industry and CE companies might face.

These joint calls were marginally helpful at best. They were essentially one-way conversations. The CE companies generally refused to discuss problems with their products in an open forum that included other CE manufacturers, while expecting that cable companies be completely forthcoming. For more than six months, NCTA requested that CEA provide a common secure website wherein CE companies could post known problems and resolutions, including any software fixes and version information. After CEA committed to such a website, it did not provide any information to permit its development. The August 2005, conference call was the last call of this group. While NCTA scheduled a follow-on call with CEA for September 2005, it was subsequently cancelled by CEA and never reinstated.

UDCP Issues List. Since July 2004, CableLabs has maintained an Issues List in order to track problems with UDCPs and any known resolution. This list is compiled mainly from cable company engineers and field technicians, with little or no input from CE manufacturers. It is distributed to cable operators every month, or upon any major update, as a tool for their technicians in the installation and troubleshooting of UDCP devices, and as an aid for responding to consumer frustrations and dissatisfaction. The list is attached. Included in the spreadsheet from CableLabs are descriptions of the UDCP vendor, problem description, date reported, and status of the issue.

It is unfortunate that CE manufacturers are not forthcoming about known issues. That such a list exists at all is because the cable industry created it. As is shown in the problems described in the list, many of the issues were acknowledged by television manufacturers. Generally, problems with UDCP devices can be broken down into four categories: software/firmware problems, hardware problems, dual problems (both software and hardware), and configuration problems. Some of the problems identified and fixed by television manufacturers include faulty software code, corrupt software code, bad power supplies, improper firmware implementation, bad tuners, bad solder joints, internal grounding problems, lamp circuit interference with the CableCARD interface, bad circuit boards, and bent pins.

Scope of Potential UDCP Problems. Since each of the issues cited in the CableLabs UDCP Issues List is specific to a particular model of TV, it is not indicative of the scope of the problem. An estimate of consumer impact can only be obtained by multiplying each known problem by the number of television sets of a given model sold to consumers prior to any fix in the manufacturing process. It is likely that this number is in the tens of thousands.

One manufacturer alone identified a software defect in its first 6,500 production units of a particular model and addressed the issue by simply posting a notice on its website. Obviously, for those consumers that do not find the notice of this fix on the CE manufacturer's website, the first point of contact is the cable company's technician installing the CableCARD. When encountering one of these 6,500 television sets on installation of a CableCARD, the cable technician will be required to request that the customer contact the CE manufacturer for a software fix that can only be accomplished through direct interaction with the manufacturer.

This will, of course, require an additional visit by the cable technician to the consumer's home after the repair, at the expense of an additional truck-roll and risk of potential consumer dissatisfaction with his or her cable service. This costs the cable operator a significant amount in wasted time, money and resources. Issues such as this have the potential to continue to surface for years to come as consumers may decide at a later date to subscribe to services requiring a CableCARD if they had not done so when they purchased the UDCP.

A. Host Software/Firmware Problems.

Improper software/firmware code installed in UDCP television sets causes significant problems for consumers, as well as for cable operators trying to properly serve their customers. Improper software/firmware design impacts tens of thousands of television sets already present in consumer homes.

Every single CE manufacturer cited on the UDCP Issues List has more than one instance of improper software/firmware design in television sets that are already for sale in retail outlets and present in consumer homes. One manufacturer alone has deployed 12 separate instances of defective software in its models. Additionally, the cable industry has no way of knowing when, or if, these issues have been resolved in production runs of a particular model from the CE manufacturer's factory.

Because defective television sets are currently in CE inventories, problems associated with these products will continue to surface for years to come. CE manufacturers generally only provide CableCARD UDCP-related software/firmware fixes when a customer reports a problem. Thus, since CableCARD-related software/firmware problems in the host won't surface until the CableCARD is installed, cable operators, once again, will be required to bear the burden of discovery and resolution of problems that have nothing to do with their services, CableCARDs, networks, or business processes. The list of software/firmware associated problems impacting television sets currently for sale, and in thousands of consumer homes, is possibly the tip of the iceberg. The cable industry only finds out about these problems when encountered in a customer's home, or in the rare case of notification from a CE manufacturer. These problems will continue to surface for years to come and will proliferate unless addressed in a more effective and forthcoming manner by CE manufacturers.

Inadequate testing, reliance on inadequate field tests in consumer homes and lack of communications regarding known problems by CE manufacturers has caused, and will continue to cause, countless hours of cable operator resources to be dedicated to rectify these software/firmware design flaws, as well as consumer frustration and potential dissatisfaction with their cable service. Full certification testing of these products and improved communications from CE manufacturers to cable operators regarding known problems and their resolution would greatly improve the consumer experience with UDCPs. For software/firmware problems, a simple list of the most current, correct software/firmware version for each Host would be very helpful.

B. Host Hardware Problems.

In addition to host software/firmware problems encountered in the field by cable operators, there have also been many instances of defective UDCP hardware discovered by cable companies and their subscribers.

The individual hardware problems cited in the UDCP Issues List understate the scope of the problem. There are several examples where a problem was identified by a CE manufacturer that impacts UDCPs already in inventory and in consumer homes. Some manufacturers released “technical bulletins” to CE service centers with procedural steps to take once a defect has been discovered in a particular model, while others have released serial numbers of products expected to be defective. Most consumers remain unaware of this information. Unfortunately, more often than not, CE manufacturers with known hardware issues have chosen not to inform their customers directly or the cable industry about the problem. In these cases, there is no mechanism to predict how often, or with what frequency, the problem will manifest itself.

Typically, when a consumer purchases a television set or other retail consumer electronics product that does not function properly or is simply broken, the consumer will either return the product for an exchange or refund, or contact the manufacturer directly for a resolution. Unfortunately, in the case of UDCPs, where the defect may only manifest itself upon first use of a CableCARD, the cable industry is once again placed in the position of providing “level one” technical support for the CE industry, all at the expense of the cable industry.

C. Configuration Problems.

The configuration problems cited in the UDCP Issues List include problems arising from a manufacturer-specific setup, wiring, user input, user manual, or device configuration issue. Although the device may be compliant with the technical requirements for a UDCP, it is the cable operator who receives the call when the UDCP does not work as anticipated by the consumer. For example, one particular host manufacturer implemented separate remote control buttons for analog and digital channels. This particularly confusing implementation resulted in lengthy installations and repeated cable operator truck rolls.

Information Roadblocks. Perhaps one of the easiest remedies to implement to alleviate some of the current problems facing the cable industry with defective UDCPs would be for the CE industry to commit to an improved method of communication about known problems with UDCPs currently on the market and their resolution. Unfortunately, as the situation stands, Cable MSOs must resort to a virtual scavenger hunt in order to identify, track, and provide service to impacted cable customers, even when these problems have nothing to do with CableCARDS or MSO networks.

There is no central repository provided by the CE industry, or even individual CE companies identifying known problems with UDCPs, the scope of any known problem, approved software/firmware version information, or recommended problem resolution. Oftentimes, cable operators find out about known problems from retailers before they are notified, if ever, by the CE companies responsible. Rather than sit idly by, cable operators, CableLabs and NCTA share

information on a weekly basis regarding known problems with UDCPs, and try to maintain an accurate list of these known issues and their resolution. As stated earlier, NCTA asked CEA to establish a website in order to consolidate this information and was told by CEA that it would do so; then after months of no action the request was finally denied.

UDCP ISSUES LIST

Legend: Software/Firmware
 Hardware
 Combination HW/SW
 Configuration Issue

	Vendor	Problem Description	Date reported	Status	Problem Category
1	Hitachi	DTV will not power on with CableCARD inserted.	11/4/2004	Hitachi reported this issue. When the CableCARD was removed, the DTV would power on. Hitachi replaced the power supply on DTV and resolved the issue.	HW
2	Hitachi	Problem with FDC lock.	6/28/2005	Hitachi investigating. FDC level at DTV -5dbmV and within spec. 6/29/05: Problem found was a bad tuner on DTV. Hitachi replaced the tuner.	HW
3	Hitachi	Problem with FDC lock.	2/14/2005	Hitachi and MSO investigating. Preliminary report is that there was a bent pin on the DTV CableCARD interface. Waiting for confirmation from Hitachi. 9/16/05: Hitachi replaced DTV module.	HW
4	Hitachi	CableCARD reports a 1090 error upon initialization with the host.	9/15/2004	10-18-04 Hitachi visited the site and reloaded the code on the DTV. Apparently, the code on the DTV was corrupt. Hitachi is investigating how this unit made it through QA.	SW
5	Hitachi	Cannot access CableCARD ID screen.	7/15/2005	New code has been requested for the DTV.	SW
6	JVC	Unable to successfully pair CableCARD with DTV; losing services.	10/14/2005	JVC has provided code update (f16e). Need clarification if the new code resolved the issue.	SW
7	LGE	161-1 error when CableCARD is inserted.	6/24/2005	6/27/05: System is attempting to contact LGE for support. 9/16/05: LGE engineers found bad solder joint and replaced DTV module on 2 DTVs.	HW
8	LGE	RF input level issues.	10/18/2005	1/5/06: MSO has contacted LGE. LGE to investigate. 2/15/06: LGE resolved RF issue.	HW
9	LGE	161-1 error when CableCARD is inserted.	12/19/2005	DTV required PCB replacement and new code.	HW and SW
10	LGE	DTV locks up when CableCARD installed.	12/21/2004	Problem was resolved with a firmware update by LGE.	SW
11	LGE	Encrypted channels indicate no signal. CP Auth OK and Encryption status OK.	12/28/2004	Problem was resolved with a firmware update by LGE.	SW
12	LGE	161-10 error.	1/19/2005	2/8/05: LGE is at CableLabs investigating problem. 3/21/05: Problem has been duplicated at CL and Motorola in San Diego. Still no resolution from LGE. 6/27/05: Problem was resolved by LGE code update. No information on version or availability given.	SW
13	LGE	Black screen appears when tuning UP to an HD channel within a multiplex.	3/10/2006	4/26-06: LGE has new code to resolve issue.	SW
14	Mitsubishi	Customer cannot receive two digital off-air channels, ABC and NBC. Both channels are broadcast in 720p. All other digital channels fine.	11/19/2004	Information forwarded to both Mitsubishi and CableLabs for further investigation. 11/30: Still waiting to hear back from Mitsubishi. 4/27/05: Problem was found to be due to mid-band tuner issue. Mitsubishi replaced tuner and resolved the issue. Waiting for information from Mitsubishi on scope of problem.	HW
15	Mitsubishi	Cannot view VC above 100.	8/17/2004	11-17-04 Problem identified in 4.02 of Mitsubishi code; Problem fixed in 4.03. DTV timer was expiring on large channel maps.	SW

	Vendor	Problem Description	Date reported	Status	Problem Category
16	Mitsubishi	DTV reports "cable card invalid."	11/16/2004	Mitsubishi is aware of the problem and is working on a solution. This is a problem with all units of this model type. 3-22-04: Problem resolved by Mitsubishi.	SW
17	Mitsubishi	After trying 2 known good CableCARDS we never received any screen information (Host or CC ID's).	11/29/2004	System has contacted Mitsubishi. 3-22-05: Problem resolved by Mitsubishi.	SW
18	Mitsubishi	DTV/CableCARD loses authorization after 5 mins - X days.	2/4/2005	Under investigation; trying to duplicate at CableLabs. 3/21/05: The 4.05 version of the Mitsubishi DTV code appears to have resolved the issue.	SW
19	Mitsubishi	NAS Issue - Large amount of channel map and NTT data sent from CableCARD to Host. Appears that all CableCARDS are getting channel map and NTT data for all headends (100's) on NAS. CableCARD is no longer filtering data by headend.	2/1/2005	3/21/04: This issue appears to only affect Mitsubishi. Mitsubishi has delivered a new 4.05 code version that appears to have resolved the issue. Has been tested at CableLabs and at some customer sites and appears to have resolved the issue.	SW
20	Mitsubishi	Problems authorizing CableCARD.	2/4/2005	Appears that if the installer does not get initialization to CableCARD from NAS quickly enough, the DTV will lock up due to large amount of channel map data being delivered from the Card to the host before the Card is assigned to a headend from NAS. Work around procedure has been distributed. 3/21/05: 4.05 code update on DTV appears to have resolved the problem.	SW
21	Mitsubishi	Authorizations were not being received at time of install. On Mitsubishi we have seen this corrected with firmware 4.05. However, we found out from Mitsubishi that the firmware which corrects this issue on this particular model, XXXXX, is still in development. Mitsubishi expects to have it available in about two weeks. 2 cards used during about an hour of troubleshooting. The customer now has an HD box for the interim. Mitsubishi was contacted. The customer is waiting for 5.03 to be released from Mitsubishi.	4/13/2005	9/20/05: Issue was resolved with DTV 5.03 code.	SW
22	Mitsubishi	Channel ID missing (Channel Name).	5/2/2005	09/16/05: Mitsubishi loaded new code on DTV.	SW
23	Mitsubishi	No digital audio out on digital RF output connector.	9/26/2005	Mitsubishi working to resolve the issue. CL checked a similar set in lab and digital audio out functioned properly with external receiver. 9/30/05: New SW provided to customer by Mitsubishi resolved the issue.	SW
24	Mitsubishi	MusicChoice on multiple channels.	8/10/2004	Mitsubishi has identified the issue and has a fix for DTV. No upgrade plan yet. Many models in retail storage and in some homes. 8/13/04- Mitsubishi has identified and developed a fix. Code update will be provided to some dealers per agreement with Mitsubishi. Update will also be provided directly to customers via compact flash update. This issue was related to a limit Mitsubishi had configured in their code for a max of 22 channels in a single multiplex.	SW
25	Panasonic	Bent pins on Panasonic DTVs upon CableCARD mating; occasional issue.	8/9/2004	Panasonic is aware of the issue and has identified a wave solder process as the cause. Will address on case by case basis. No recall plans. 12-2-04 Panasonic has provided a list of model numbers and serial numbers affected by the PIN issue. Models listed may or may not have the problem.	HW
26	Panasonic	Problems with CableCARD Firmware update.	6/21/2005	6/27/05: Panasonic identified an issue and has released new code for the DTVs. Waiting for status update. 6/28/04: Panasonic reports V1.22 code version is available to resolve the	SW

	Vendor	Problem Description	Date reported	Status	Problem Category
27	Panasonic	Problems with channel map changes.	11/2/2005	Panasonic has provided a manual workaround. Need update on a permanent fix for dynamic update for channel map changes implemented by the headend.	SW
28	Panasonic	Channel map changes do not dynamically update on DTV.	11/14/2005	Panasonic provided manual resolution for the issue: removing and inserting the CableCARD or by going into the MENU->Set-up->Reset (second page). Still waiting for code update from Panasonic to dynamically handle channel map reconfigurations.	SW
29	Panasonic	Encrypted channels cannot be viewed.	12/13/2006	Under investigation. 1/31/06 New code needed for DTV.	SW
30	Panasonic	No audio on SAP programs (HBO).	7/29/2004	SAP on HBO does not function on set when selected. Most likely a Host Issue. 11-16-04 Panasonic has said that they have new HOST code coming out to fix this problem, no ETA yet. 2-1-05 New code has been approved.	SW
31	Panasonic	Encrypted channels cannot be viewed.	39064	Under investigation. 1/31/06 New code needed for DTV.	SW
32	Philips	161-2	7/28/2005	DTV reports error 161-2. 09/16/05: New code on DTV was required to resolve the issue.	SW
33	Philips	Cannot tune clear QAM channels.	11/16/2005	Need update. 1/5/06: System bought one of these same models for VOD testing and did not experience the problem.	SW
34	Philips	DTV does not track channel map changes.	12/28/2005	Need update. 2/10/06: Workaround has been identified. Waiting for Philips to come up with final solution in code update.	SW
35	Philips	161-2 error when Motorola CableCARD is inserted.	2/3/2006	Need updated status. 2/10/06: New code provided by Philips resolved issue.	SW
36	RCA	Encrypted channels go dark after < one to 3 days. Cannot access CableCARD info.	1/4/2005	RCA and SA are investigating. Problem duplicated in CableLabs. 3-22-05: Problem resolved by RCA.	SW
37	RCA	Cannot view encrypted content. ECM not being received at CC CableCARD Diag Screen. CP Auth msg and channel map present on DTV.	3/10/2005	Two CableCARDs have been tried. STB works in the home. Levels appear to be OK. One of the two CableCARDs was verified OK in another set. Issue appears to be with DTV.	SW
38	Samsung	Cannot get channel 7.	12/5/2005	Main board change resolved issue.	HW
39	Samsung	Encrypted/CP channels missing or intermittingly working.	11/10/2005	Both DTVs require SW update. One required HW fix. 11/30/05: DTV is now losing channels. 12/5/05: Samsung indicated that the channel map is not lost, only the channel names. This is because the information exceeds the amount of non-volatile memory in the set. When the set is turned back on, the channel names are repopulated.	HW and SW
40	Samsung	Digital Channels missing.	8/4/2005	After CableCARD initialization, authorization, and channel list update has been completed (CableCARD is working properly), putting the TV into standby mode for approximately one hour or more will cause loss of the digital channel list. When bringing the TV out of standby, the digital channels cannot be tuned (either with 10 key or using the Ch +/- buttons on the remote).	SW
41	Samsung	DTV has problems detecting channel modifications.	10/4/2005	Samsung developed a new SW version after several visits to site and now handles channel modifications properly.	SW
42	Samsung	DTV does not track headend channel modifications.	10/28/2005	Samsung is investigating. 12/6/05: Samsung has modified code to resolve the issues.	SW
43	Samsung	DTV locks up.	11/29/2005	Need update. 2/9/06: Samsung provided new code.	SW

	Vendor	Problem Description	Date reported	Status	Problem Category
44	Samsung	DTV locks up and resets.	11/29/2005	Under investigation. 2/6/06: Samsung engineers visited site and found that a large amount of data is received over HITS until the init is sent. New SW from Samsung resolved issue.	SW
45	Samsung	Difficulty tuning to channel on 669 MHz.	12/8/2005	Samsung has SW fix.	SW
46	Sharp	Use of remote control buttons for analog and digital tuning is unclear.	9/7/2004	It is unclear how to tune a digital and analog channel on the Sharp unit. User cannot just channel up and down between analog and digital channels. 9-9-04 Sharp has provided text describing the use of the analog and digital buttons on the remote control.	Config
47	Sharp	Card would not take - install was over 3 1/2 hours.	11/3/2004	Cable input needs to be split and connected to two inputs on the DTV. Sharp documentation does not provide this information nor does Sharp supply a splitter for these units.	Config
48	Sharp	Customer reports problems viewing channels 2 - 11 and 13. Had been working but does not work now.	3/18/2005	Sharp and System have been working with customer. CL worked with customer briefly. Waiting for update. 3-22-05: Analog channels now being dual carried. CC channel map using digital channels for 2-11 and 13. Customer informed to use digital button on remote then tune to 2 - 11 and 13.	Config
49	Sharp	Channels missing.	4/29/2005	Channels missing 05/16/05: Sharp determined that the missing channels were configured with path_select_bit set to 1. This is configured in SCVT. It appears that as part of the 64QAM to 256QAM transition, channels are being staged and set to plant "B". This sets the path_select_bit to one. Sharp does not add channel in the map with path_select_bit set to 1. Verified with other (all) manufacturers that they ignore the path_select_bit setting and add channels set to 1 or 0 to the map. Suggested to Sharp that they modify their code to do the same.	SW
50	Sharp	Error E-203.	7/12/2005	Error E-203 on multiple models. 9/16/05: DTV had wrong code loaded. Sharp updated code on DTV.	SW
51	Sharp	Error 203 being reported when tuning to some channels.	7/18/2005	Sharp believes there is a timeout problem when tuning to some channels. Sharp reports this is an intermittent problem. 9/16/05: Sharp has provided a new version of code to attempt to resolve the issue.	SW
52	Sharp	202 Error	10/27/2005	New code installed by Sharp.	SW
53	Sharp	Cannot acquire channel map.	11/17/2005	System is working with Sharp. 1/13/06: Sharp found corrupt code in the DTV.	SW
54	Sharp	DTV does not track channel map changes.	12/27/2005	Need update. 2/10/06: Workaround has been identified. Waiting for TV vendor to come up with final solution in code update.	SW

	Vendor	Problem Description	Date reported	Status	Problem Category
55	Sony	The Tech kept receiving "NO SIGNAL". We instructed him to get to the TV's menu and find either "auto configuration" or "channel set-up". Upon choosing "channel setup" the tech found a configuration that allowed channels to be either HIDDEN or SHOWN. He proceeded to SHOW all channels and he surprisingly saw the channels begin to populate. We may have to instruct the tech onsite to go into the "channel setup menu" and do either an "auto configuration" or find a menu item that will force the TV to recognize the newly installed device to auto populate the channels. To verify this assumption, we spoke to Sony. The default setting for this model in particular, is HIDDEN channels. In order for the CableCARD to function properly, Sony stated that the TV would have to be amended from the default, HIDDEN channels setting to SHOWN channels. This will allow the analog as well as digital high def channels to be recognized by the TV.	11/23/2004	CableLabs and Sony both contacted and feel that this is a misunderstanding and that the TV can only get its channel map from the OOB. Manufacturer to follow up directly with MSO. 3-22-05: Problem resolved by Manufacturer.	Config
56	Sony	DTV cannot lock to OOB.	12/30/2004	Problem was due to ingress/egress carrier near FDC. Sony has a preliminary tuner fix and is testing.	HW
57	Sony	After 2 or 3 days of working properly, the DTV displays 'signal cannot be decoded'. If the CableCARD interface is reset from the DTV menus, operation is restored for another 2-3 days.	9/28/2005	Sony is working the issue. This also may be the issue with model XXX-XXXX. 2/9/06: Problem related to projector DTV lamp grounding issue.	HW
58	Sony	DTV loses all information when DTV is powered off (Stby mode). DTV reset is required to restore channels.	10/18/2005	Sony uncovered an issue with the lamp circuitry and released a tech bulletin to resolve the issue. The lamp circuit interferes with the CableCARD interface. MSOs have been advised to have the customer contact Sony in the event that this issue arises on other units of this model.	HW
59	Sony	Loss of HD channels when DTV is powered off. DTV reset is required to restore channels.	11/2/2005	MSO has asked customer to contact Sony.	HW
60	Sony	On HD (maybe STD also), display goes blank and DTV loses audio. DTV either displays 161-6 error after some period of time or DTV resets automatically and video and audio return.	9/1/2004	SA, Sony and CL are in Columbus, OH trying to capture cause of problem. Sony has had some success duplicating scenario in San Diego lab. 11-16-04 Sony has indicated that they can't reproduce this anymore in their lab and have asked Columbus to ship a TV to them. We've referred them to NYC for another place to investigate (NYC has reported this issue on 2 customer Manufacturer TVs; Problem appears to be occurring on model XX-XXXXXX. 12-04-04 Sony replaced a module in the DTV. Appears that there is a component tolerance issue in early production runs of DTV module.	HW
61	Sony	Unable to get pairing information.	11/18/2004	This model is not yet self verified. This device should not have been on live Cable Plant - Breach letter sent. Sony indicates that they are continuing to work issues with this device before providing self verification docs. The customer in this case is a Sony rep. Sony engineers were surprised that the rep requested a CableCARD and that he even has the unit. 3-22-05: New firmware loaded on DVR resolved the issue.	SW

	Vendor	Problem Description	Date reported	Status	Problem Category
62	Sony	Inop channels. Channels coming off PowerVu + 1 Digicypher channel to Cisco Rate Mux to MPS to C6U are affected.	11/30/2004	Problem has been reported to Sony. 6/28/05: Sony has identified a problem and has test code available. Formal release due in July. 9/16/05: Problem was due to Sony's handling of multiple ECMs.	SW
63	Toshiba	Cannot view digital channels.	9/27/2004	Toshiba has identified the issue and is working on a plan to distribute and update the 1st 6,500 production units. 10-18-04 Toshiba has posted a notice on their website.	SW
64	Toshiba	Cannot get CableCARD and DTV working properly. Cannot access CableCARD screens for diagnostic purposes.	1/31/2005	CableLabs is working with personnel in Houston, TX. 3-25-04: Toshiba updated code in DTV.	SW
65	Toshiba	DTV loses channels; inconsistent operation.	9/26/2005	Toshiba is developing new code.	SW
66	Toshiba	Cannot acquire channel map.	10/31/2005	Toshiba may have code to resolve the issue. 11/2/05: Toshiba has implemented new code in Syracuse which apparently resolves the issue. Need update on how this release will be distributed. 11/3/05: Toshiba indicated releases are available: For the 94 series it is: 1.58 For the 95 series it is: 1.28 LCDs do not have ability for customer upgrade.	SW
67	Toshiba	DTV reports 161-64 error.	11/29/2005	Toshiba indicates that this invalid error code is an indication of a DTV issue. New code to be released to remove this error code. Need update. 1/25/06: New version of code released by Toshiba to resolve the issue.	SW