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December 11, 2006

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

**Re: CS Docket No. 97-80**

Dear Ms. Dortch:

On Friday, December 8, 2006, William Check, Senior Vice President, Science & Technology for the National Cable & Telecommunications Association (“NCTA”), Paul Glist from the law firm of Cole, Raywid & Braverman, Kevin Leddy, Senior Vice President of Development of Time Warner Cable, Timothy Dodd, Vice President of Technology Policy of Time Warner Cable, Mark Coblitz, Senior Vice President of Strategic Planning of Comcast Corporation, Dallas Clement, Senior Vice President, Strategy & Development of Cox Communications, and I met with Donna Gregg, Chief of the Media Bureau as well as the following Bureau staff: Andrew Long, Rick Chessen, Mary Beth Murphy, Steven Broecker, John Wong, Michael Lance, Alison Greenwald, Brendan Murray and John Gabrysch. We discussed the November 7, 2006 filing by certain consumer electronics (“CE”) and IT companies addressing issues regarding two-way “plug-and-play” devices. We made the following points:

*The marketplace OCAP approach developed by the cable industry and major CE companies is bringing two-way plug and play products to market now, much faster than any hypothetical approach could ever do.*

- OCAP is a middleware solution that provides innovative and constantly-evolving applications to multiple hardware platforms. Like the middleware solutions used internationally in MHP, GEM, ACAP, Blu-Ray, and cell phones, OCAP leverages the Java development and deployment base. OCAP allows a wide variety of consumer electronics devices to have access to new services without the delay imposed by needless standards activity on an application-by-application and device-by-device basis. Interactive cable applications can be written once to OCAP and can then interact with a wide variety of leased and retail hardware devices, thereby avoiding the need to write each application to the native features of each set-top box or TV.

- OCAP is already standardized at the SCTE, an ANSI-accredited standards body, and CE, IT, and cable interests have all had, and will continue to have, the opportunity to steer the development of OCAP now and into the future. Further, a worldwide patent pool for OCAP has been established, based on reasonable and non-discriminatory terms; the majority of patent holders are CE manufacturers. Both Comcast and Time Warner Cable are members of the OCAP patent pool, as are middleware and applications developers such as Open TV.
- All CE companies committed to using OCAP middleware for two-way plug-and-play products in the negotiated Cable-CE Plug-and-Play Agreement submitted to the FCC in 2002. No matter how CEA seeks to gloss over this fact, the most recent CEA proposal reneges on this commitment.
- In the meantime, over a dozen independent CE companies, including leaders in HDTV technology such as Samsung,<sup>1</sup> Panasonic<sup>2</sup> and LG Electronics,<sup>3</sup> have signed the OCAP and CHILA licenses with the cable industry's research and development center, CableLabs, to manufacture two-way retail devices. These companies, and more than 50 other equipment, application, and implementation vendors, have invested years of effort and millions of dollars in developing this OCAP middleware solution to permit commercial availability of retail navigation devices that receive interactive cable operators' program guides, video-on-demand ("VOD"), "switched" channels, interactive programming enhancements and other advanced services.
- Two-way OCAP plug-and-play products have been built by CHILA/OCAP signatories, have been exhibited at the 2006 Consumer Electronics Show, and are being tested in live trials in a number of cable operator systems.
- Major cable operators have committed to using and supporting OCAP in their own leased set-top boxes, and are beginning deployment now. It is in the business interest of the cable industry to roll out OCAP rapidly to leased and retail products, because OCAP streamlines and improves the cable business and because OCAP provides applications developers and consumers with an interactive platform which is fully competitive with IPTV.
- In response to questions about the deployment of OCAP, we explained that the cable industry is rapidly deploying OCAP in systems and set-top boxes as promised in prior commitments, and ahead of the schedule NCTA proposed in November 2005. Approximately 4 million homes are passed with OCAP today

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<sup>1</sup> Samsung is now the world leader in HDTVs. "Who's the World's HDTV Leader?" TVPredictions.com, November 27, 2006 ("Sony ... will now have to cede that title to a Korean company. ... Samsung is selling more TVs – and generating more revenue – than any other set manufacturer in the world.")

<sup>2</sup> "Panasonic was the best-selling plasma TV brand in the United States this year ...." See "Panasonic Plasma HDTV Goes From Wish List to Reality for Many This Holiday Season," <http://money.cnn.com/news/newsfeeds/articles/prnewswire/NYTH18116112006-1.htm>.

<sup>3</sup> "LG is the world's largest producer of flat-panel displays ...." "Interview: LG Electronics," <http://www.physorg.com/printnews.php?newsid=66310119>.

and OCAP deployment in Time Warner, Comcast and Cox systems is targeted by the end of 2008. OCAP is being optimized in coordination with real systems and manufacturers. Multiple guides, multiple VOD applications, switched digital applications, interactive advertising, caller ID, email viewers, on screen subscriptions, and even the TiVo interface are being ported to OCAP. OCAP is currently on Time Warner set-top boxes supplied by Cisco/Scientific-Atlanta and by retail manufacturers (Samsung), as well as on retail two-way OCAP DTVs manufactured by Samsung. Other retail manufacturers are rapidly developing competing OCAP DTVs. Panasonic is developing OCAP set-top boxes.

- CEA is wrong in suggesting that the cable industry is trying to disadvantage retail products to get “cash cow” returns from leased boxes. Cable operators repeatedly have said they’d like nothing more than to get those equipment expenses off of their books in order to focus on developing and deploying innovative services to consumers. Leased equipment is priced under FCC regulations at cost plus no more than 11.25% return. As equipment costs are recovered, those recovered costs are removed from the FCC permitted equipment pool. In the markets deregulated through effective competition, competition provides an even tighter limit on cost recovery. Payback is constrained by law and by the market to eliminate any “cash cow” suggested by CEA.

*The approach submitted by competitors to CHILA signatories is not a “compromise.”*

- The proposal insists instead that the cable industry provide selected two-way services through specific protocols designed for each application. It is a proposal for perhaps the most intrusive regulatory regime ever established. It demands a complete redesign of every part of cable architecture: headends, networks, guides, guide data, VOD, multistream CableCARDS, and leased set-tops. For example, multistream CableCARDS would become miniature set-top boxes, with more resources, more memory, more processing power and higher cost. VOD servers would have to be restructured in ways that have long been rejected by the VOD vendors. Cable operators would be compelled to break their contracts with program guide vendors.
- The proposal cannot lead to a more rapid deployment of two-way retail devices than is possible with the current approach. The proposal does not acknowledge that there are no standards, no intellectual property clearances, and no manufacturers to implement it. At least eight new lengthy standardization efforts would be required to meet the CEA approach. Cable’s next generation of downloadable security would require a total redesign. The cable industry cannot simultaneously redesign OCAP, redesign DCAS, get them promptly deployed, and develop a “protocols” approach designed solely to deliver a small piece of cable service in a manner never marketed or sold by cable. In short, the proposal would impose substantial costs on cable customers and cable operators alike and substantial delays on the rollout of new cable services and technologies.

- The proposal does not seek “parity” with low-end leased set-top boxes. Low-end set-top boxes are non-portable, single-tuner, standard definition, non-DVR devices and deliver cable services exactly as ordered by the consumer from each cable operator, using a low-cost digital converter. The proposal explicitly requests that the “low-end” be augmented with high-definition and DVR functionality as well as national portability. Every CE manufacturer today has the opportunity to build a low-end set-top box, but, except for Pace, CE manufacturers have instead produced HDTVs that cost thousands of dollars. They are not promising to do anything else even under this proposal. The claim of parity is merely a stalking horse to undermine OCAP.

*The CE companies who submitted the proposal want a free ride on the cable industry’s multi-billion dollar investment in cable networks and services.*

- Cable operators have spent billions of dollars buying programming and equipment and designing their networks to deliver state-of-the-art, rapidly-evolving interactive services to their customers. These cable-delivered services, such as caller ID on the TV, instant polling/voting, interactive advertising, or Time Warner Cable’s Start Over service, are being deployed today.
- The proposal would force the cable industry to disassemble its services so CE companies can repackage cable’s offerings as their own for viewing on their devices. This will make it impossible for consumers or operators to know what cable services a cable customer will be able to receive on a CE device and how they will be displayed.
- Under this proposal, “cable-ready” DTVs will not deliver cable services as consumers have bought them or in the way they have been marketed and delivered by their cable operator. The DTV would strip away services, features, parental controls, cable navigators, reminders, and privacy profiles – and each TV would do so in different ways.
- Attempting to carve up and limit cable services in this manner would create a regulatory quagmire for the Commission, the cable and CE industries, and consumers. Moreover, consumers have the right to receive the services that a cable company has contracted to deliver and have them delivered in the manner consumers expect.
- DTVs built to the proposal would be instantly archaic. They would be incapable of receiving cable’s interactive services, such as Time Warner Cable’s Start Over service, caller ID on the TV, interactive programming, and wireless video. The CE proponents are repeating a mistake made four years ago by the CE manufacturers who told the cable industry that cable customers only wanted linear cable channels and had no interest in VOD. When they finally built those limited one-way digital cable-ready products, the consumers who bought them wanted the VOD that those devices did not deliver. The current proposal to create “two-way” DTVs limited to VOD is equally blind to the rapid evolution of cable’s interactive programming, and will likewise disappoint and confuse cable customers.

*The proposal would chill innovation contrary to the mandate of Section 629.*

- The cable industry has been a leader in innovation, investing over \$100 billion in private, risk-capital in fiber-based networks since the 1996 Telecommunications Act was passed. Myriad new services and products have been developed and deployed. By contrast, this proposal would freeze innovation in cable's interactive video services, including VOD, electronic program guides, interactive programming enhancements as well as emerging interactive services by subjecting them to a time-consuming, expensive and unnecessary redesign and standardization process. No innovations in OCAP would be permitted without an FCC rulemaking or permission from CE manufacturers. The entire cable industry would first have to agree on a single approach, then standardize it, before launching a service. Time Warner's popular Start Over service could not have been developed or deployed under the CEA approach. Under CEA's approach, programmers could not deliver two-way interactive programming to retail devices advertised as two-way "digital cable ready." Cable could not roll out new interactive services without first subjecting them to testing by the CE industry. Cable could not change existing cable services for the life of deployed legacy CE products. Cable operators could not migrate to switched video (as now used by AT&T) without FCC or CE industry approval, thus delaying the expansion of network capacity for higher-speed data, telephony, digital simulcast, more VOD, new program networks, and more high-definition. Innovation cannot occur rapidly on these terms.
- The proposal would enable some CE companies which are behind the curve to delay their CE competitors from delivering innovative new services.
- The proposal would discard the substantial investment and progress made to date by the cable industry and others on OCAP and on cable's next generation of downloadable security ("DCAS") and dictate that the cable industry and CHILA signatories shift their attention to the development of non-OCAP and other solutions dictated by self-selected CE and IT companies.
- The proposal is contrary to the Commission's policy of technological and competitive neutrality by seeking to impose burdensome new requirements on cable but not on cable's DBS, telco, wireless, and Internet competitors. CE, IT, and competing MVPDs do not operate in the market under the constraints on innovation they propose for cable. Instead, they rapidly innovate their products and services, rolling out new products with non-standardized, non-interoperable interfaces, music players, remote controls, menus, HD DVDs, computer memory, chips, gaming stations and games, and offering new services that don't work on old devices. DBS, Verizon, and AT&T rely on integrated leased set-top boxes for the launch of new service. All these companies innovate without waiting for standardization or government permission. Applying restrictions only to cable is unprecedented government intervention in the private marketplace.

- The proposal requires a 180-degree change in course, not for the benefit of consumers, but instead to favor certain pet technologies and projects of certain CE and IT companies. Those companies have business reasons for placing obstacles in the path of CHILA signatories who are in the forefront of bringing two-way OCAP products to market. For example, OCAP is based on Sun's Java technology, while Microsoft and its CE partners are deploying competing Microsoft IPTV devices, and DCAS utilizes a hardware-based chip while Intel's current chips use software-based security.
- Even if it could be implemented, by imposing costly and highly invasive regulations exclusively on the cable industry and consumers, the proposal would contravene Congress' directive to the Commission that, in implementing Section 629, it should "avoid actions which would have the effect of freezing or chilling the development of new technologies and services."

*The proposal does not meet the realities of intellectual property rights in the market.*

- There are hundreds of third party IPR rights surrounding program guide design and formats and VOD offerings, the two technology areas addressed by the proposal. Cable operators had to pay approximately \$750 million to clear the IPR rights for offering their own program guides. CE manufacturers have had four years to add their own program guides to one-way digital cable-ready DTVs, but to date every retail DTV has confronted the same IPR, and has chosen to use the Gemstar guide or none at all. Even if CE manufacturers bought metadata from the same suppliers that provide cable guides, they will not have solved the issue of third party IPR in this technology. Likewise, every VOD vendor has IPR rights that will not go away through the proposed VOD "standardization" effort.

*The proposal would jeopardize the security of the cable network in violation of Section 629(b) of the Act.*

- Development of cable's downloadable security would no longer be subject to non-disclosure protections which are essential to the development of effective network security, again contrary to the congressional mandate in Section 629. It should be obvious that a security system must keep certain information secret that might otherwise be used to try to break its security. Every commercially successful deployed pay-TV security system uses confidentiality as a defense against hacking. Almost every consumer electronics product is developed using a non-disclosure environment. CE companies used non-disclosure agreements to develop AACS security for HD-DVD devices which will display the same high-end content that cable will be protecting with DCAS.
- Cable operators would be forced to use content protection technologies that have not been properly vetted for use with cable content and do not have the support of the studios and other content suppliers for cable distribution. Cable would not be able to provide a competitive service – with high-value programming consumers want – under these conditions.

- In response to questions about the use of software-only security in cable systems, we explained that we found no European (or other) evidence of purely “software-based” downloadable security in retail-like devices as proposed in the November 7 filing. European cable systems, like those in the United States, rely on hardware-based security. Even the “software” used in AT&T’s IPTV set-tops is hardware based: it is delivered to a specific, proprietary set-top which controls the video path in hardware built to AT&T’s specification – not to retail devices that go into the market without such constraints. A software-only solution is currently not suitable as protection for all of the high-value content carried on cable. DCAS is responsible not only for protecting the security of cable networks and the highest-value early release high-definition content, but the keys to the conditional access business of Motorola, Cisco/Scientific-Atlanta, and other vendors.
- In response to questions about content provider support for the cable industry’s approach to DCAS, we explained that the Motion Picture Association of America has specifically rejected a software-only downloadable security approach and specifically supported DCAS’s use of a hardware root of trust for the high value copyrighted content delivered via cable. *See* Comments of the Motion Picture Association Of America, Inc., CS Docket No. 97-80, February 6, 2006, pp 4-5 (attached as Exhibit A).

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For all of these reasons we argued that the filing submitted by certain CE and IT companies will not bring two-way plug-and-play products to market soon (if ever), violates Section 629 of the Act, and would substitute government mandates for marketplace negotiations which are working to bring two-way products to market right now.

If you have any questions, please contact the undersigned.

Respectfully submitted,

**/s/ Neal M. Goldberg**

Neal M. Goldberg

cc: Donna Gregg  
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EXHIBIT A

**COMMENTS OF THE  
MOTION PICTURE ASSOCIATION OF AMERICA, INC.**

CS Docket No. 97-80, February 6, 2006, pp 4-5

2. An Effective Downloadable Conditional Access System Must Have a Hardware Root of Trust.

DCAS can only operate effectively in the form of authenticated software loaded and executed within a DCAS Secure Microprocessor Chip since the system relies upon a hardware "root of trust" within the specialized microprocessor Chip. DCAS cannot provide the same level of security if it were to be implemented in the form of a software application that was downloaded and executed on a general purpose computer, as suggested in the comments filed by Dell, H-P, Intel and Sony Electronics, Inc. In fact, if DCAS were implemented as a downloadable software application with a software "root of trust," it would greatly expose the security of the system to software attacks, which could be developed and easily distributed over the Internet.

for cable navigation devices. It is important that the security elements of DCAS be implemented in a consistent manner across all cable navigation platforms to ensure that high-value, copyrighted content is never exposed to unauthorized copying and/or redistribution.

The MPAA restates its support of the goal of Dell, H-P, Intel and Sony Electronics, Inc. in enabling the general purpose computer as a cable navigation platform to enhance the competitive marketplace for navigation devices. However, the MPAA does not see the need to eliminate the security afforded by the DCAS Secure Microprocessor and its hardware "root of trust" as necessary to achieve this goal.