

From: []@CableLabs.com
Sent: Friday, May 24, 2002 3:37 PM
To: bpdg-tech@list.lmicp.com
Subject: BPDG: Cable's Comments on the Co-Chair Report

Per Jud Cary's request, I am posting the latest comments to Co-Chair's report to the reflector.

Please see the attached two additional comments to the report. Note that these comments do not include changes that take into account last night's discussion.

CableLabs reserves the right to post further comments on co-chair reports as they are released.

<<BPDG Report 0523 Cable Comments.DOC>>
Thanks,

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Senior Security Architect
CableLabs

BPDG REPORT TO CPTWG

1.1 This report is presented by the Broadcast Protection Discussion Group ("BPDG") to the Copy Protection Technical Working Group ("CPTWG"), to summarize the work and conclusions of the BPDG in evaluating technical solutions for preventing unauthorized redistribution ~~(including unauthorized redistribution over the Internet)~~ of unencrypted digital terrestrial broadcast television (referred to hereinafter as "DTV")¹.

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2.1 In a meeting the afternoon of November 28, 2001, approximately 70 representatives of the consumer electronics, information technology, motion picture, ~~cable~~ and broadcast industries agreed to form the Broadcast Protection Discussion Group. License Management International LLC established an email reflector to promote discussions of any technical issues.²

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4.12 Both proposals for section X.2 of the Compliance and Robustness Requirements anticipate that an appropriate provision will be crafted so as to exempt the requirements from applying to products that are specifically intended for professional ~~video~~ and broadcast use (e.g., equipment used by studios, TV broadcasters, satellite and cable operators).

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5.1 The scope of protection to be accorded to DTV content has been described in the BPDG meetings and documents in various ways, such as, "protection against unauthorized redistribution (including the Internet)," or "unauthorized redistribution outside the home or personal digital network environment," or

¹ See section 5.1 with respect to disagreements regarding the scope of the project.

² More than 200 individuals subscribed to the bpdg-tech reflector.

outside the “home or other similar local environment,” and so forth³. Notwithstanding, all statements of the scope of the BPDG project have included redistribution over the Internet as an example of such protection. ~~A few~~Some participants contend that that the scope of protection ~~now~~ should simply be limited to unauthorized redistribution ~~only~~ over the Internet. Others suggest that the parallel group consider a more precise definition of the contours of such protection, so as to clarify that the protection would limit redistribution of DTV to “personal” environments, which they described as including the home, automobile, personal portable devices, and communications between primary and secondary residences.

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5.3 The draft Compliance Requirements would permit personal computer products to continue to deliver protected DTV content through unprotected DVI outputs, at MPEG-2 main profile @ main level video quality. This provision is designed to accommodate legacy computer monitors that receive content only through DVI. ~~A few~~Some participants have suggested that this capability also should apply to consumer electronics products, inasmuch as some manufacturers might wish to market devices, such as cable or satellite set-top boxes, that would be capable of delivering DTV to such personal computer monitors. The MPAA member companies have stated that the provision is narrowly tailored to address a very small number of currently existing legacy displays, and have maintained that there is no material benefit to expanding the provision in such a manner, and that there may be substantial harm in doing so.

5.4 The draft Compliance Requirements would permit the use of a self-certified “Robust Method” for outputs only where the DTV content was unaltered Unscreened Content (e.g., Unscreened Content that had not yet been transport stream processed). ~~A few~~Some participants have requested such an output be permitted for Marked Content as well, noting concern that without it, the development of innovative content protection systems for home networks, and rapid deployment of same, would be significantly affected. The MPAA member companies have maintained that Marked Content, having been subject to transport stream processing, is particularly susceptible to unauthorized redistribution and should therefore be subject to the more rigorously and clearly identified protections provided by “authorized” protection technologies, citing benefits to both manufacturers and consumers arising from the certainty and resulting increased access to attractive digital broadcast content that would be afforded by this approach.

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5.8 It was suggested that the method for transmitting DTV content that is received from a trusted source and remodulated using an nVSB modulator could be included on Table A. ~~A small number of companies~~Some participants supported this suggestion. Motion picture companies objected to this proposal on grounds that nVSB remodulation is not a “protection” technology at all, and it was not appropriate to include on Table A technologies that were not protection technologies. Additionally, it was noted by others that the impact of this proposal would be to permit other non-protection technologies to be listed on Table A, under criteria proposed by companies of the Motion Picture Association of America, DTLA and Computer Industry Group (*see* section 6.6).

5.9 During early BPDG meetings certain participants expressed the view that an approach based on a “broadcast flag” for protecting DTV content must be designed so as to avoid negatively affecting other

³ The phrase “home or other similar local environment” is used specifically in relation to the output of DTV content using a self-certified “Robust Method”, and a few participants have requested that it be changed to “home or personal digital network environment” consistent with wording used elsewhere, whereas the MPAA member companies have maintained that “personal digital network” is unduly broad, especially in this context.

content protection systems. A specific concern noted was the possibility that such a flag-based system, in conjunction with consumer n-VSB and m-QAM modulators, might be misused to “launder” content torn from other protection systems. For example, motion picture content might be ripped from a DVD-Video disc, converted into a transport stream, and passed through a consumer modulator such that a product compliant with the flag-based requirements would demodulate it and handle it as DTV content. Pursuant to such concerns, the MPAA member companies proposed during an April BPDG meeting that consumer n-VSB and m-QAM modulators be required to block content that arrived from non-trusted sources containing the Broadcast Flag from being modulated. In mid-May such companies further proposed that the draft Compliance Requirements be modified so as to prevent Unscreened Content from being passed to outputs protected by “authorized” protection technologies, on the basis that Unscreened Content is not known to be DTV content. [Without limitation, Cable reserves right to further comment on this section]

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6.1 It is the understanding of the BPDG that the parallel group will consider means of enforcement of broadcast protection requirements, including by legislative or regulatory means. As noted above, two approaches have been proposed in drafts of section X.2, setting forth concepts as to how the Compliance and Robustness Requirements might be implemented and enforced. The BPDG recommends that the parallel group give consideration to these and potentially other proposed approaches for section X.2. As noted in 4.12 above, it was agreed that some exemption for professional equipment should be accommodated.

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6.6 The BPDG requests that the parallel group consider proposed criteria that could be used to determine whether a particular technology should be “authorized” as a digital output protection technology or recording method. Three proposals were presented to the BPDG. Two proposals coalesced into a single proposal offered by companies of the Motion Picture Association of America, DTLA and Computer Industry Group, which was part of an overall proposal that included amendments to the Compliance and Robustness Requirements (the “Tri-Group” proposal). That proposal is attached to this Report at Tab G. The other proposal for criteria, offered by Philips, is attached to this Report at Tab H. [as this entire issue is being deferred to the parallel group, and the proposals are attached, we do not believe it is necessary to go into detail here]. The two approaches can be summarized as follows:

~~6.6.1 The Tri-Group proposal includes three criteria that are intended to reflect demonstrated marketplace use or approval of the technology by content owners (and, in the case of Criterion Two, by implementer licensees), and one criterion (Criterion Three) by which a proponent may demonstrate that a proposed technology provides protections at least as effective as those offered by any other technology on the list. Several organizations and participants have submitted statements noting that certain of their technologies would qualify under the criteria noted above.~~

~~6.6.1.1 DTLA submitted a statement that the DTCP transmission protection technology satisfies at least Criterion Two of the Tri-Group proposal; and that protection technologies that were approved to protect DTCP-protected content, namely, HDCP for transmission protection and CPRM and D-VHS for recording protection, would therefore qualify under the criteria as authorized technologies. This submission is attached at Tab I. DTLA proposed “Associated Obligations” that define the requirements for implementation of these technologies in conjunction with the BPDG Compliance and Robustness Requirements, which obligations also are included in the attachment to Tab I. At the BPDG meeting on April 29, participants speaking on behalf of Sony Pictures and Warner Bros. confirmed that those companies had entered into licenses to use~~

~~DTCP and that they believe DTCP and the other three technologies mentioned above satisfy the criteria set forth in the Tri-Group proposal. Representatives from four other MPAA companies also stated at the April 29 meeting that they believe the four technologies satisfy the criteria and should be included on Table A.~~

~~6.6.1.2 Separate submissions were made by DCP in support of the HDCP technology, the 4C Entity in support of the CPRM technology, and JVC in support of the D-VHS technology. These submissions are attached at Tabs J, K and L, respectively. Each of these companies proposed “Associated Obligations,” which also are included in the attachments to the Tabs identified above.~~

~~6.6.1.3 Microsoft submitted a statement that the Windows DRM satisfies one or more of these criteria. This submission is attached at Tab M. Microsoft did not include specific “Associated Obligations,” but did provide a description of how its Windows DRM protects content through renewability of compromised security components, enforcement of revocation and other means.~~

~~6.6.2 The Philips proposal is set forth as a combination of technical criteria, and criteria defining specific attributes that would be required of licenses for any proposed technology.~~

~~6.6.2.1 Philips submitted a statement that its OCPS transmission protection technology satisfied both its proposed criteria and one of the Tri-Group proposed criteria. Philips attached to its submission a technical description of the OCPS technology, a term sheet outlining proposed license terms, and proposed compliance and robustness rules. This submission is attached at Tab N. Philips did not propose “Associated Obligations.”~~

~~6.6.3 Proponents and opponents of each approach described specific concerns and objections at length in several meetings, and particularly in the meetings on April 3 and April 29. Inasmuch as issues surrounding the appropriateness of each approach, or of particular criteria, implicate policy considerations, the BPDG recommends that this issue be considered further by the parallel group.~~

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6.8 Computer Industry Group companies have requested that the parallel group consider the establishment of additional or variations of the objective criteria proposed by the Tri-Group in Criterion Three, and other implementers have requested that additional or variations of the objective criteria be added as separate criteria. Tri-Group proposed Criterion Three already contains tests for a technology which is proposed to be added to Table A without direct content owner “use or approval.” [<= we believe this is somewhat misleading. The “tests” include an evaluation of the level of Change Management. Change Management affords the content owners “a specified right or ability to meaningfully object.” Thus, in effect, the content owners have a form of “approval” through Criterion Three as well.] Computer Industry Group Companies believe that the parallel group could examine such Criterion in light of the limits of the BPDG goals as stated in work plan for the BPDG: “to prevent unauthorized redistribution of unencrypted digital over-the-air broadcast content.” Those companies believe that some of the criteria could be altered or additional criteria substituted that would permit a technology to be added to the list consistent with those goals and consonant with the Compliance and Robustness Requirements. Those companies, as well as others, were concerned that some parts of Criterion Three may not be interpreted to be objective, and that comparing the technical effectiveness of the technologies should be an objective measurement. Their concern was, however, that comparing license terms relating to security (*i.e.*, output and recording controls), enforcement and Change Management might not be

objective. Those companies believe that (a) it should not be difficult, in the context of protecting over-the-air digital television, to create alternatives or variations of those criteria that both are objective and are consistent with the robustness and compliance provisions of the Compliance and Robustness Requirements and (b) it is critical that the requirements be objective and readily understood by a manufacturer proposing a technology to be added to the list.

6.9 Computer Industry Group -companies, and other companies, requested that the parallel group determine that the Compliance and Robustness Requirements not go into effect until a minimum number of technologies have been included in Table A under the Tri-Group proposed criteria. (The tri-group proposal does not require this.) Those companies view this as an important precondition to compliance obligations for two reasons: (a) since compliance will be a new government mandate, there should be a reasonable number of technologies to select from in order to ensure that no manufacturer is forced to adopt one of a small number of alternatives; (b) Criterion Three of the Tri-Group proposal only functions adequately if there are a sufficient number of technologies to compare a technology proposed to be included on the list.

6.10 Similarly, some companies have requested that no technologies be placed on Table A (as "recommended," "approved," or otherwise) until the criteria for Table A have been finalized by the parallel group. "Approval" would not occur unless and until an appropriate regulating body is established, the finalized criteria are applied, and the regulating body determines the technology is "approved." Discussion of what technologies might be approved for Table A is time is premature.

From: []@CableLabs.com
Sent: Wednesday, May 29, 2002 3:41 PM
To: Bpdg-tech@list.lmicp.com
Subject: RE: BPDG: Fox's REVISED Modulator Proposal - Cable Response

Jud Cary <j.cary@CableLabs.com>
In addition to the comments previously filed by Cable (including both the NCTA and CableLabs, and their members) to the BPDG Requirements and the Report, Cable has the following remarks:

1) Cable is generally agreeable to the addition of X.3(a)(2) and X.4(a)(2) for commercial modulators as submitted by Fox.

2) Cable reiterates its position that X.3(a)(3), X.3(a)(6), X.3(b)(2) and X.4(a)(4) (section numbering from the Fox proposal) remain in the Requirements document as authorized outputs. We strongly believe that failure to provide such outputs will severely curtail the development of innovative content protection systems for home networks, and rapid deployment of same.

3) We assume that these comments, and any others submitted, will be incorporated into the documents, and an appropriate review period will be granted before making the documents "final".

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