COMMENTS OF MICROSOFT
May 31, 2002

BPDG REPORT TO CPTWG

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1.6 On November 28, 2001, representatives of the five member companies of DTLA – Intel Corporation, Hitachi Ltd., Matsushita Electric Industrial Co. Ltd., Sony Corporation and Toshiba Corporation (collectively also referred to as the "5C" companies) – described in a presentation to the CPTWG a refined version of the Fox technical proposal using the ATSC Redistribution Control descriptor as a "Broadcast Flag" to signal protection for DTV content against such unauthorized redistribution. A copy of the presentation, entitled "Protecting Against Unauthorized Redistribution of Digital Broadcast Content" is attached to this report at Tab A.[1] The presentation suggested that DTV content be protected beginning at the point of demodulation of the ATSC stream, so as to assure that DTV content in usable form would be securely routed to ATSC transport stream processors that would read the Broadcast Flag. If the flag were determined by the ATSC transport stream processor to be present, then the DTV content would be securely delivered to protected digital output and recording technologies. If the flag was determined by the ATSC transport stream processors not to be present, then no further protection need be applied to the DTV content. The presentation outlined possible requirements for compliant devices, and rules to ensure robust implementation of the suggested protection system.[2]

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2.2A As the Work Plan makes clear, the purpose of the BPDG was to investigate the possibility for protecting unencrypted digital terrestrial broadcast content with technical measures given that the preferred method of protecting content, encryption, was deemed not viable. The BPDG attempted to develop a complex solution in a short period of time, and necessarily had to confront many difficult technical, implementation, enforcement and policy issues that it could not resolve, and therefore referred those critical issues to a parallel group. As a consequence, the Compliance and Robustness Requirements document is incomplete and addresses just a subset of the issues that must be resolved before a meaningful copy protection system can be adopted and implemented.

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4.6 Unscreened Content and Marked Content should be recorded by or output from covered products via only the following permitted methods:

a. Analog outputs and recording methods;

b. nVSB and mQAM modulators (subject to certain conditions)[*];

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[1] The presentation is available from the CPTWG website at http://www.cptwg.org/Assets/TEXT%20FILES/ProtectingWDC9911-01.PPT.

[2] It was suggested that a more effectual technical and enforcement solution would be to encrypt DTV content at the source (*i.e.*, the transmitter). Given the current political environment ~~and that this solution would make relatively new equipment obsolete~~, this approach was rejected by motion picture studios and broadcasters, as well as by representatives of consumer electronics manufacturers. [Either the reference to obsolescence should be removed or additional language should be added that other copy protection mechanisms (e.g., 5C or watermarking) also would have the effect of making some relatively new equipment obsolete.]

[*] MPAA raised the issue on the last teleconference of amending X.3's provisions on modulation. CIG cannot take a position on this issue because it was brought up just recently, has not been adequately studied by our member companies, and even the discussion on the conference call generated many important questions that were not completely answered. After further investigation and study the proposed changes by MPAA may be found to have merit but we lack sufficient information to make that judgment now.

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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. The two approaches can be summarized as follows:

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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~~ provided a description of how its Windows DRM protects content through renewability of compromised security components, enforcement of revocation and other means. Opponents of the Microsoft proposal assert that these mechanisms do not constitute adequate Associated Obligations.

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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. As noted, Tri-Group proposed Criterion Three contains tests for a technology which is proposed to be added to Table A without direct content owner "use or approval." 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 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. ~~Other members of the Tri-Group believe that the Tri-Group proposal meets all of these conditions.~~

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[*] There is no such organization as the "Tri Group," and CIG is certainly not a member of any such group, so the Report should not include any reference to "Tri Group." We understand that this will be corrected.