

**INTERNATIONAL ORGANISATION FOR STANDARDISATION  
ORGANISATION INTERNATIONALE DE NORMALISATION  
ISO/IEC JTC1/SC29/WG11  
CODING OF MOVING PICTURES AND AUDIO**

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**Title: Liaison on Video Coding for Browsers**

**To: IETF RTCWeb**

ISO/IEC JTC1/SC29/WG11 (MPEG) would like to inform IETF about our recent progress on Internet Video Coding Technologies, and in particular exploratory work on Video Coding for Browsers based on VP8 by Google.

MPEG issued a Call for Proposals (CfP) on Internet Video Coding Technologies in July 2011, with the objective of developing a standard where patent owners are prepared to grant a free-of-charge license (Type 1 license in ISO parlance) to an unrestricted number of applicants on a worldwide, non-discriminatory basis. This CfP resulted in two exploration activities, Internet Video Coding (IVC) and Web Video Coding (WebVC). MPEG subsequently became aware of additional technologies that could possibly achieve the goals of the CfP, and reissued a modified version of the CfP in April 2013.

The only submission in response to the reissued Call for Proposals was VP8. Due to a number of discrepancies between the submission and the requirements of the CfP, MPEG was not able to make a fully satisfactory comparison between it and the AVC anchor. Apparently, more than half of the submitted bit streams exceeded the stipulated bit rates, in one case by 60%. Moreover in the High Profile AVC anchors used in the tests rate control was turned off, while this was not the case for the submitted VP8 bit streams. In spite of our inability to draw clearcut conclusions, MPEG started a third exploration activity called Video Coding for Browsers (VCB) based on VP8 in July 2013.

All three activities are ongoing and are subject to the ISO/IEC process, which includes multiple approval stages based on ballot. WebVC has passed the DIS ballot stage, which requires one more ballot prior to final approval as an International Standard. Internet Video Coding (IVC) and Video Coding for Browsers (VCB) are exploratory activities that have not yet entered the first ballot. The receipt of IPR declarations may also impact the continued progress of each activity.

MPEG continues to monitor the video compression performance of each activity. In particular, Internet Video Coding has recently reported good results and is in active improvement.

We suggest ongoing liaison to ensure that each body maintains a clear picture of the other's activities in the area of video coding for the Internet domain.

For your information, our upcoming meetings are:

- The 107<sup>th</sup> MPEG meeting, 13-17 January 2014 in San Jose, California, USA
- The 108<sup>th</sup> MPEG meeting, 31 March - 4 April 2014 in Valencia, Spain