MASKING VIDEO INFORMATION BY PARTIAL ENCRYPTION OF H.264/AVC CODING PARAMETERS (WedPmOR10)

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Abstract :

The goal of partial encryption of a bit stream is to make the entire stream somehow useless for anyone that cannot decrypt its ciphered subset. In this paper we present the effects of the partial encryption of some H.264/AVC coding parameters, in order to obtain a moderate degradation of the video content, which can be appealing for commercial applications, like pay−per−view systems and others, without strictly focusing on security or cryptanalysis issues. The goal of preventing full quality vision and providing a low quality version, attractive enough for potential purchasers, is obtained by means of simple ciphering operations, and evaluated by visual inspection. Some results of partial encryption are presented, which show how it is possible to produce a moderate degradation of the video stream by ciphering single coding parameters or a combination of them.

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