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Information technology — MPEG systems technologies —

Part 7:

Common encryption in ISO base media file format files

Technologies de l'information — Technologies des systèmes MPEG —

Partie 7: Cryptage commun des fichiers au format de fichier de médias de la base ISO

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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- *Part 1: Binary MPEG format for XML*
- *Part 2: Fragment request units*
- *Part 3: XML IPMP messages*
- *Part 4: Codec configuration representation*
- *Part 5: Bitstream Syntax Description Language (BSDL)*
- *Part 7: Common encryption in ISO base media file format files*

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Introduction

The Common Encryption ('cenc') protection scheme specifies standard encryption and key mapping methods that can be utilized by one or more digital rights and key management systems [digital-rights management (DRM systems)] to enable decryption of the same file using different DRM systems. The scheme operates by defining a common format for the encryption related metadata necessary to decrypt the protected streams, yet leaves the details of rights mappings, key acquisition and storage, DRM compliance rules, etc., up to the DRM system or systems supporting the 'cenc' scheme. For instance, DRM systems supporting the 'cenc' protection scheme must support identifying the decryption key via 'cenc' key identifier (KID) but how the DRM system locates the identified decryption key is left to a DRM-specific method. DRM specific information such as licenses or rights and license/rights acquisition information can be stored in an ISO Base Media file using a Protection System Specific Header box ('pssh'), using one for each DRM system applied. DRM licenses/rights need not be stored in the file in order to look up a key using KID values stored in the file and decrypt media samples using the encryption parameters stored in each track.