



ISO/IEC JTC 1/SC 29 N 19851

ISO/IEC JTC 1/SC 29 "Coding of audio, picture, multimedia and hypermedia information"

Secretariat: **JISC**

Committee Manager: **Koike Mayumi Ms.**



Liaison Statement from SC 29/WG 03 to 3GPP SA4 on encoder and packager synchronization [SC 29/WG 03 N 275]

Document type	Related content	Document date	Expected action
Project / Other		2021-05-25	INFO

Description

In accordance with Recommendation 11.1.1 at the 3rd WG 03 Meeting, 2021-04-26/30, Online, the SC 29 Secretariat sends this liaison statement to 3GPP SA4. [Requested action: For SC 29's information]



ISO/IEC JTC 1/SC 29/WG 03

MPEG Systems

Convenorship: KATS (Korea, Republic of)

Document type:	Liaison Letter
Title:	Liaison Statement Template on Encoder and Packager Synchronization Activities
Status:	Approved
Date of document:	2021-04-30
Source:	ISO/IEC JTC 1/SC 29/WG 03
No. of pages:	2 (with cover page)
Email of Convenor:	young.L @ samsung . com
Committee URL:	https://isotc.iso.org/livelink/livelink/open/jtc1sc29wg3

**INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
ISO/IEC JTC 1/SC 29/WG 03 MPEG SYSTEMS**

ISO/IEC JTC 1/SC 29/WG 03 N0275
April 2021, Virtual

Title	Liaison Statement Template on Encoder and Packager Synchronization Activities
Source	WG 03, MPEG Systems
Status	Approved
Serial Number	20465

MPEG Systems would like to inform you on the availability of two exploration documents:

- 1) Encoder and packager synchronization (N0231)
- 2) Storage, archiving and content management of CMAF files (N203)

The first exploration document investigates the protocols and signaling needed for creating redundant workflows for (codec and format agnostic) live streaming deployments. While the distribution redundancy is often achieved by multiple caches within a CDN or multiple concurrent CDNs, the redundancy in encoding, packaging and origin functionality is not as straightforward. Different encoders could be fed by different sources or different packagers or origins could be fed by different encoders. The ultimate goal is to sustain hardware or power losses or network connectivity issues without a service disruption. For glitch-less switchovers between different encoders/packagers one needs time-aligned outputs (not necessarily bit-identical, though) as well as identical manifests.

The second exploration document acknowledges that CMAF is not only practical for streaming using DASH, HLS or other delivery protocols, but also shows a potential for storage and archiving purposes. Consequently, this document investigates how content management systems need to handle CMAF content as it gets distributed and cached/stored through a series of packagers, origin servers, object/block storage and edge servers and later archived. The document considers storage and delivery manifests, and CMAF identifiers that can support the generation of the manifests through identifying the structural relationship between the CMAF files/tracks.

Invitation to the public workshop:

We would like to invite your experts to participate in and contribute to a public (virtual) workshop we are planning to hold in early June. The goal is to discuss open issues and develop a proposed standardization plan for the following topics: encoder/packager synchronization, live media ingest and content storage, archiving and management. The results of the workshop will be presented to MPEG Systems WG at its coming meeting on July 12-16th, 2021 to help establishment of the standard development plan on these topics. We would appreciate it if you could announce this information to the experts in your organization and bring your agenda items or other ideas to help us understand the market needs regarding the topics.

Planning and announcements for this workshop will be done through our mailing list, which you can subscribe at <https://lists.aau.at/mailman/listinfo/synched-encoding>.