Number: L201846A

Subject: Liaison to 3GPP SA4: Status on DASH Client APIs and Information on Live Media Ingest

From: **DASH-IF**
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To: **3GPP**
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Attachments:
1) Specification of DASH Application Events and Timed Metadata Processing Models: https://dashif-documents.azurewebsites.net/Events/master/event.html
2) WebIDL Instantiation Specification for DASH Event and Timed Metadata API https://github.com/Dash-Industry-Forum/Events/blob/master/DASH%20Event%20Metadata%20API%20ver%208.pdf
3) Specification of Live Media Ingest: https://dashif-documents.azurewebsites.net/Ingest/master/DASH-IF-Ingest.html

Date: 02-Jul-2019

Dear 3GPP SA4 Experts,

The DASH-IF wishes to inform SA4 of the latest status on development of DASH Client Event and Timed Metadata APIs in support of the 3GPP work item on Service Interactivity. In addition, we would like to provide information on the recently-completed Live Media Ingest work item in DASH-IF.

In support of 3GPP's work item, DASH-IF is producing a single API framework and a WebIDL Instantiation. The API supports the carriage of event notification information by one of three mechanisms:

- DASH MPD Event Streams
- DASH In-band Event Streams, and
- Timed Metadata Tracks

As a companion document to the API documentation, a specification on DASH client processing model of DASH Events and Timed Metadata Track samples was recently approved in DASH-IF and is currently undergoing community review, with comments due on 31 July 2019. Expected DASH-IF publication of this document is 31 Aug 2019. The WebIDL API specification was approved by the DASH-IF today and will immediately go out for community review. The same dates as indicated above will apply regarding comment review deadline and expected publication of this specification.

Regarding Live Media Ingest, the objective of that specification is to improve interoperability between server-side entities such as live ABR encoders, packagers and content delivery networks (CDNs). Common Media Application Format (CMAF) represents the file format for delivery using HTTP POST based transmission. Two main use cases are defined: a) CMAF or fMP4 based ingest of an active streaming origin and packager, and b) Push-based ingest of DASH content to a passive origin server and/or CDN which does not re-package the content. Particular attention has been given to the support of timed metadata, such as SCTE-35 based splice points or program information in CMAF-based tracks, along with redundancy and fail-over support. The Live Media Ingest specification will enable live encoders to implement a consistent output format which in turn serves as a consistent input format for ingest by downstream entities. The Live Media Ingest specification might be of interest to SA4, given your related activities on the use of DASH/ISOBMFF file format for media service delivery, and external interfaces to content providers.

The comments on all specs can be provided using the issues trackers of the corresponding github repositories.

The DASH-IF asks 3GPP SA4 to take the above information into account and provide us any questions or comments on the related work and specifications.

Next Meeting:

- DASH-IF #21 Face-to-Face Dec 10-12, 2019, Portland, Oregon, USA

Regards,
William Frantz
DASH-IF Liaison Officer