**3GPP TSG-SA WG4 Meeting #127S4-240363**

**Sophia-Antipolis, France, 29 January - 2 February 2024**

Title: Reply LS on the non-transparency of stream IDs from JavaScript data channel applications

Response to: LS (S4-240009) on the non-transparency of stream IDs from JavaScript data channel applications from GSMA TSG IMSDCAS

Release: -

Work Item: -

Source: S4

To: GSMA TSG IMSDCAS

Cc: -

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Attachments: -

**1. Overall Description:**

3GPP SA4 thanks GSMA TSG IMSDCAS for their liaison on the non-transparency of stream IDs from JavaScript data channel applications (GSMA IMSDCAS06\_012, S4-240009).

3GPP SA4 has discussed the topic during its SA4#127 meeting and would like to provide the following answers.

***Question 1:*** *Clarify why the data channel application needs to set a value of stream ID when the stream ID is not a part of data channel application specification and its requirements, while in contrast non-authoritative "a=3gpp-qos-hint” might be part of application requirements, e.g., latency requirement for AR/VR, yet they are not mandatory to be set by the application. The stream ID does not come into play when the data channel application business logic is specified as it is irrelevant for the application over what stream ID the actual traffic is being sent.*

**Answer 1:** It is possible that the data channel application operational aspects were not sufficiently considered when IMS data channel was specified in 3GPP TS 26.114 Rel-16. One possible reason is likely that TS 26.114 is a UNI specification, which leaves most device-internal aspects out of scope.

The reason to explicitly include all available media transport properties and identification, including stream ID numbers, in the UNI signaling, was likely based on some perceived common practice to do so in UNI specifications, even though no formal requirement exist to follow such practice.

The reason why "a=3gpp-qos-hint" is not mandatory to set, was based on an assumption that the default application expectation on IMS data channel is to send data reliably from point A to point B, without any further transport layer considerations. Not including "a=3gpp-qos-hint" in UNI SDP signaling is defined to mean "no specific QoS expectation", which may thus be best-effort. This is aligned with the default configuration of an IMS data channel, which implies use of full STCP retransmission that would cope with any transport, also best-effort.

***Question 2:*** *Describe the scenario when the actual value(s) of stream ID(s) play a role from the data channel application perspective and the usage of alternative stream IDs would not allow to implement the data channel application logic. That is to explain the use case and requirement for non-transparency of stream IDs.*

**Answer 2:** The possibility to distinguish between bootstrap data channels and application data channels is significant from an overall IMS data channel perspective, even though using stream IDs to achieve that is not a required method; it was just chosen as a straightforward approach.
However, when just considering the data channel application perspective and the application data channels used by that application, SA4 cannot find any reason that requires use of specific stream ID numbers.
It is then assumed that it is the responsibility of the data channel application to provide means to identify and differentiate among potentially multiple data channels used by the data channel application. Such identification can, e.g., make use of stream ID numbers, the per-data channel "label" attribute, or other means.

***Question 3:*** *Provide an example of data channel application business logic computation that uses the stream ID as a parameter.*

**Answer 3:** SA4 cannot find any example of such application business logic computation.

**2. Actions:**

**To GSMA TSG IMSDCAS group.**

**ACTION:** 3GPP SA4 asks GSMA TSG IMSDCAS group to take the above answers into account and, if GSMA TSG IMSDCAS finds explicit handling of IMS data channel stream IDs to be infeasible or unmanageable, to return to SA4 with more detailed information on the conditions and contexts where explicit stream ID handling should be avoided.

**3. Date of Next SA4 Meetings:**

SA4#127e 8th - 12th April 2024 E-Meeting

SA4#128 20th - 24th May 2024 Korea