**3GPP TSG-S4 Meeting #129e*****S4-241385r01***

**Electronic, , 19th–23rd August 2024** revision of S4aR240037

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **26.113** | **CR** | **0001** | **rev** | **—** | **Current version:** | **18.0.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | [iRTCW, 5GMS\_Pro\_Ph2] Dynamic Policies API usage | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | BBC | | | | | | | | | |
| ***Source to TSG:*** | S4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | iRTCW, 5GMS\_Pro\_Ph2 | | | | |  | ***Date:*** | | | 2024-07-29 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | TS 26.510 V18.0.0 specifies a way for the Media Session Handler to declare to the Media AF in the Dynamic Policy Instance the values that will be used for PDU set marking in the RTP header extension specified for this purpose by TS 26.522. However, TS 26.113 does not yet specify how to populate the values. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Specify population of *ApplicationFlowDescription.mediaTransportParameters* property in *DynamicPolicy* resource at clause 10.3 and point clause 4.3.1.2 at it. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Usage of Dynamic Polices API in the RTC System is underspecified in Release 18. | | | | | | | | |
| ***Q*** | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 4.3.1.2, 10.3, 12 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | The text in square brackets in clause 10.3 depends on CT4 adding the property RtpHeaderExtInfo.pduSetPduCountActive at clause 5.5.4.14 of TS 29.571. This bullet could be removed from this CR at this point, leaving the explanatory NOTE below as a reminder to request this change from CT4. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | dCR [S4aR240037]: Submitted for WG ad hoc endorsement.  CR0001 [S4-241385]: Resubmitted for WG agreement. | | | | | | | | |

First change

# 2 References

(Snip)

[36] 3GPP TS 26.571: "5G System; Common Data Types for Service Based Interfaces; Stage 3".

[37] 3GPP TS 26.522: "5G Real-time Media Transport Protocol Configurations".

Next change

#### 4.3.1.2 Media transport procedures at RTC-4m and RTC‑12

Under the control of an RTC Application (i.e., *Native WebRTC App* or *Web app*) the RTC Access Function sends/receives media data, application data and/or media-related metadata to/from a peer RTC endpoint at reference point RTC-4m (if its peer is the Media Function of the RTC AS) or RTC-12 (if its peer is another RTC Access Function).

In the context of the present document, neither the requirements for audio codecs and processing as defined in IETF RFC 7874 [32] nor the requirements for video codecs and processing as defined in IETF RFC 7742 [33] apply to RTC endpoints. The codecs that RTC endpoints are required to support are specified in clause 16.

When a Dynamic Policy Instance is operative during an RTC session, PDUs contributed by RTC endpoints on the application flow(s) described by each Application Flow Description shall comply with the media transport properties declared by that Application Flow Description, as specified in clause 10.3.

Next change

## 10.3 Dynamic Policy API

The Dynamic Policy API allows the RTC Media Session Handler of the RTC Client or the ICE Function of the RTC AS or the WebRTC Signalling Function of the RTC AS to request a specific QoS and/or charging policy to be applied to the application flows of an RTC session. The Dynamic Policy API is invoked as a result of SDP negotiation during the WebRTC signalling phase of the RTC session.

The relevant procedures are specified in clause 5.3.3 of TS 26.510 [3].

The resource structure and the data model are specified in clause 9.3 of TS 26.510 [3].

If specific QoS with PDU Set parameters is desired and PDU Set marking is not enabled for the selected Policy Template as specified in clause 5.3.3.2 of TS 26.510 [3], the Media Session Handler shall additionally populate the mediaTransportParameters property of the Application‌Flow‌Description object (see clause 5.5.4.13 of TS 29.571 [36]) as follows when creating or updating a Dynamic Policy Instance based on that Policy Template:

- The transportProto property shall be set to the value SRTP.

- The rtpHeaderExtInfo object (see clause 5.5.4.14 of TS 29.571 [36]) shall be omitted.

- The rtpPayloadInfoList property shall contain a single member populated as follows:

- rtpPayloadTypeList shall be set to the *RTP Payload Type* value(s) to be used by the RTC endpoint (e.g., the RTC Access Function of an RTC Client) for the negotiated SRTP session(s) to be carried by the application flow in question.

- rtpPayloadFormat shall be populated as appropriate in the absence of RTP header extensions.

If PDU Set marking is enabled for the selected Policy Template as specified in clause 5.3.3.2 of TS 26.510 [3], the Media Session Handler shall additionally populate the mediaTransportParameters property of the Application‌Flow‌Description object (see clause 5.5.4.13 of TS 29.571 [36]) as follows when creating or updating a Dynamic Policy Instance based on that Policy Template:

- The transportProto property shall be set to the value SRTP.

- The properties of the rtpHeaderExtInfo object (see clause 5.5.4.14 of TS 29.571 [36]) shall be populated as follows:

- rtpHeaderExtType shall be set to PDU\_SET\_MARKING.

- rtpHeaderExtId shall be set to the value of the *ID* field to be used by the RTC endpoint (e.g., the RTC Access Function of an RTC Client) in the *RTP Header Extension for PDU Set Marking* on the application flow in question, as specified in clause 4.2 of TS 26.522 [37]. The value of this parameter is negotiated via the SDP offer/answer procedure during the WebRTC signalling phase of the RTC session.

- longFormat shall be set according to the use of the one- or two-byte *RTP Header Extension for PDU Set Marking*, as specified in clause 4.2.1 of TS 26.522 [37]. The value of this parameter is negotiated via the SDP offer/answer procedure during the WebRTC signalling phase of the RTC session.

- pduSetSizeActive shall be set to reflect the presence of the *PDU Set Size* field in the *RTP Header Extension for PDU Set Marking*, as specified in clause 4.2.4 of TS 26.522 [37]. The value of this parameter is negotiated via the SDP offer/answer procedure during the WebRTC signalling phase of the RTC session.

NOTE: The intention of the RTC Access Function of the RTC Client to include the optional NPDS (Number of PDUs in the PDU Set) field in the *RTP Header Extension for PDU Set Marking* is not yet signalled in advance to the 5G Core by means of a Boolean flag in the RtpHeaderExtInfo specified in clause 5.5.4.14 of TS 29.571 [36].

- The rtpPayloadInfoList property shall contain a single member populated as follows:

- rtpPayloadTypeList shall be set to the *RTP Payload Type* value(s) to be used by the RTC endpoint (e.g., the RTC Access Function of an RTC Client) for the negotiated SRTP session(s) to be carried by the application flow in question.

- rtpPayloadFormat shall be omitted because RTP header extensions are present.

In all PDUs it contributes at reference point RTC‑4m or RTC‑12 that fall within the scope of the application flow description, the RTC Access Function (Media Access Function) shall use the protocol indicated in transportProto; it shall set the SRTP header fields in accordance with rtpPayloadInfoList; and it shall include a one- or two- byte (consistent with the signalled length) *RTP Header Extension for PDU Set Marking* in the SRTP header with fields set according to the values declared in the rtpHeaderExtInfo property per above.

Next change

# 12 Media access client API (RTC-7, RTC-11)

Reference point RTC-7 is used by the RTC Application to communicate with the RTC Access Function for establishment and management of an RTCPeerConnection. The procedures at this reference point are equivalent to those supported by the W3C-defined JavaScript APIs including WebRTC API.

Reference point RTC-11 is used by the RTC Media Session Handler to communicate with the RTC Access Function for establishment and management of an RTCPeerConnection.

End of changes