**3GPP TSG-SA4 Meeting # 131 S4-250192**

**Geneva, Switzerland, 17th – 21st Feb, 2025 *revision of S4-242232***

**Agenda item:** 14.6

**Source:** Nokia

**Title:** [SR\_IMS] Proposed Updated Work Plan

**Document for** Agreement

# Introduction

During SA4#127 the New Work Item on “Split Rendering over IMS” (SR\_IMS) in S4-240515 was agreed and afterwards approved in by SA#99 in [SP-240492](https://www.3gpp.org/ftp/TSG_SA/TSG_SA/TSGS_103_Maastricht_2024-03/Docs/SP-240492.zip).

The Work Item has the following objectives:

1. Identify functional entities for IMS-based split rendering and introduce a mapping to the IMS architecture (reuse of architectures in TS 26.264 and the IMS architecture in TS 23.228).
2. Identify interfaces and define network APIs for delivering media from 3GPP and non-3GPP services for split rendering of XR services.
3. Define protocols, procedures, and codecs for delivery of split-rendered media and metadata for support of split rendered content including uplink (e.g., pose), and downlink (e.g., rendered pose) as part of a new specification.

Note1: For objective 3, some of the work is done for AR services as part of Rel-18 WI IBACS, therefore, where possible, references to TS26.114, TS 26.264, TS 26.119, TS 26.522 and TS 26.565 will be added for metadata and codec capabilities. The procedures covered in TS 26.264 can be appropriately migrated to the new specification or referenced.

1. Define procedures for adaptation of split rendering between the split rendering client and split rendering server (e.g., depending on the type of device, battery level, content type, actions).
2. Identify and define network exposure functions (e.g., congestion exposure) and network estimation (e.g., through QoE metrics) to facilitate the split rendering process.

# Time Plan

The following time plan for the execution of the SR\_ IMS objectives is proposed in the following table.

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| Meeting |  **Split Rendering over IMS**  |
| **SA4#127 (29 January - 2 February 2024, Sophia-Antipolis, FR)** | * Agree New Work Item SR\_IMS in [S4-240515](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_127_Sophia-Antipolis/Docs/S4-240515.zip).
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| **SA#103 (19 - 22 March 2024, FR)** | * Approve New Work Item SR\_IMS in [SP-240492](https://www.3gpp.org/ftp/TSG_SA/TSG_SA/TSGS_103_Maastricht_2024-03/Docs/SP-240492.zip).
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| **Post SA4#127-e AHG call (27th March 2024, RTC SWG, deadline 25th March 2024)**  | * Agree initial Work Plan.
* Initiate work on:
	+ Specification skeleton and scope for TS 26.567
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| SA4#127-bis-e (08 - 12 April 2024, online) | * Agree Specification skeleton for TS 26.567.
* Initiate work on:
	+ Scope including key use cases.
	+ Identify relevant architectures, functional entities, and network APIs in existing 3GPP TSs/TRs that could be reused.
* Communicate with other 3GPP working groups and external organizations, if necessary.
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| Post SA4#127-bis-e AHG calls(6th May 2024, 16:00 –18:00 CEST, RTC SWG, submission deadline 2nd May 2024, 23:59 CEST) | * Progress work on the above.
* Initiate work on:
	+ The functional entities of split rendering over the IMS architecture (including the potential architecture level mapping).
	+ Network APIs for split rendering of XR services.
	+ General procedures of rendering session establishment, rendered media delivery, etc.
	+ Identify existing protocols, procedures, codecs that could be reused.
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| SA4#128 (20 - 24 May 2024, Korea) | * Progress work on the above.
* Continue work on:
	+ The functional entities of split rendering over the IMS architecture (including the potential architecture level mapping).
	+ Network APIs for split rendering of XR services.
	+ General procedures of rendering session establishment, rendered media delivery, etc.
* Communicate with other 3GPP working groups and external organizations, if necessary.
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| Post SA4#128 AHG calls* 26th June 2024, 16:00 –18:00 CEST, RTC SWG, submission deadline 25th June 2024, 16:00 CEST
 | * Progress work on the above.
* Continue work on:
	+ The functional entities of split rendering over the IMS architecture (including the potential architecture level mapping).
	+ Reference points for split rendering.
	+ General procedures of rendering session establishment, rendered media delivery, etc.
 |
| SA4#129-e (19 - 23 August 2024, online) | * Progress work on the above.
* Initiate work on:
	+ Format of split-rendered media
	+ Signaling protocols to enable split rendering over IMS
	+ Metadata formats
	+ Detailed procedures of rendering session management including UE centric and Network centric session management
* Communicate with other 3GPP working groups and external organizations, if necessary.
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| Post SA4#129 AHG calls:* RTC SWG Telco Sep 25, 2024, 15:00 –17:00 CEST (submission deadline Sep 23, 2024, 23:59 CEST)
* RTC SWG Telco Oct 09, 2024, 06:00 –08:00 CEST (submission deadline Oct 07, 2024, 23:59 CEST)
* RTC SWG Telco Oct 23, 2024, 15:00 –17:00 CEST (submission deadline Oct 21, 2024, 23:59 CEST)
 | * Progress work on the above:
	+ Format of split-rendered media
	+ Signaling protocols to enable split rendering over IMS
	+ Metadata formats
	+ Detailed procedures of rendering session management

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| SA4#130 (18 - 22 November 2024, Orlando) | * Progress work on QoE report formats
* Progress work on split rendering procedures
* Progress work on media configuration and codecs, metadata formats, etc.
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| Post SA4#130 AHG calls:* RTC SWG Telco Dec 17, 2024, 15:00 –17:00 CET, (submission deadline Dec 16, 2024, 15:00 CET)
 | * Progress work on the above
* Progress work on protocols and codecs for delivery of split-rendered media
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| Post SA4#130 AHG calls:* RTC SWG Telco Jan 15, 2025, 15:00 –17:00 CET, (submission deadline Jan 13, 2025, 23:59 CET)
 | * Progress work on the above
* Progress work on protocols and codecs for delivery of split-rendered media
* Progress work on the issues need to communicate with other 3GPP working groups (potentially SA2)
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| Post SA4#130 AHG calls:* RTC SWG Feb 05, 2025, 12:00 –14:00 CET, (submission deadline Feb 03, 2025, 23:59 CET)
 | * Joint session with Audio SWG
	+ Audio features of split rendering over IMS
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| SA4#131 (17 - 21 February 2025, Geneva) | * Progress work on the metadata format, message types, procedures, etc.
* Initiate work on MF capabilities for split rendering
* Agree on TS 26.567 v1.0.0 to be sent to SA plenary for information
 |
| Post SA4#131 AHG calls:* RTC SWG Telco 5th March, 2025, 15:00 –17:00 CET, (submission deadline 3rd March , 2025, 23:59 CET)
 | * Progress work on the media configuration and codecs, metadata formats, etc.
* Progress work on MF capabilities for split rendering
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| SA#107 (11 - 14 March 2025, Korea) | * Send TS 26.567 v1.0.0 to SA for information
 |
| Post SA4#131 AHG calls:* RTC SWG Telco 26th March, 2025, 15:00 –17:00 CET, (submission deadline 24th March, 2025, 23:59 CET)
 | * Progress work on the above
* Progress work on the issues need to communicate with other 3GPP working groups (potentially SA2/CT4)

Note: need special power to send LS to SA2/CT4  |
| SA4#131-bis-e (Apr. 7 – Apr. 11, 2025, e-Meeting) | * Progress work on the above.
* Communicate with other 3GPP working groups and external organizations, if necessary.
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| SA4#132 (May 19 – May 23, 2025, Fukuoka, JP) | * Complete all remaining open issues.
* Communicate with other 3GPP working groups and external organizations, if necessary.
* Agree on TS 26.567 v2.0.0 to be sent to SA plenary for Approval
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| SA#108 (June 10 – June 13, 2025, Prague, CZ) | * Send TS 26.567 v2.0.0 to SA plenary for Approval
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# Proposal

We propose the above Work Plan for the SA4 team's consideration.