**3GPP TSG-S4 Meeting # 128 S4-24xxxx**

Jeju, Korea, May 20th - 24th, 2024

**Agenda item:** 18

**Source:** InterDigital Canada

**Title:** Draft Time Plan for the FS\_ARSpatial Study Item v0.1.0

**Document for** Discussion and Agreement

# Introduction

The study item has the following objectives:

* Study how functions such as UE tracking in a real environment, relocalization (to estimate the pose of the AR device), mapping (to reconstruct the surrounding space), and semantic perception are realized and identify the necessary set of spatial mapping information.
* Collect and document the different formats for spatial descriptions as well as interoperability requirements for such descriptions.
* Identify where spatial computing functions run and which media, metadata, and description formats are used for exchange between these elements based on the architecture defined in the TS 26.506, notably in split processing scenarios. And document relevant procedures, flows, configurations, and transport protocols.
* Identify gaps in TS 26.119, TS 26.506, and TS 26.565 to support XR spatial description handling, with a focus on real-time scenarios, based on relevant use cases from 3GPP SA1 TR 22.856 and SA4 TR 26.998.
* Study the interactions and cross-operation between a spatial computing service and other media service enablers and architectures, such as split rendering, as well as potential interactions with AI/ML architectures in TR 26.927.
* Identify and recommend potential areas for normative work as the next phase and communicate/align with other potential 3GPP WGs and external organizations on relevant aspects related to the study.

# Time Plan

The following time plan for the execution of the FS\_ARSpatial study item objectives is proposed in the following table.

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| --- | --- |
| Meeting | **Work Item Objectives** |
| SA4#129-e (19 – 23 August 2024, Online) | * Study spatial computing functions and identify the necessary set of spatial mapping information. * Collect and document spatial description formats. * Document interoperability requirements for such descriptions. |
| SA4#130 (18 – 22 November 2024, Orlando, US) | * Study spatial computing functions identify the necessary set of spatial mapping information. * Collect and document spatial description formats. * Document interoperability requirements for such descriptions. * Mapping of spatial computing functions to the architecture defined in TS 26.506.   + Document procedures, flows, configurations, and transport protocols. |
| SA4#131 (17 – 21 February 2025, Geneva, Switzerland) | * Collect and document spatial description formats. * Document interoperability requirements for such descriptions. * Mapping of spatial computing functions to the architecture defined in TS 26.506.   + Document procedures, flows, configurations, and transport protocols. * Identify gaps to support XR spatial description handling, with a focus on real-time scenarios.   + based on relevant use cases from 3GPP SA1 TR 22.856 and SA4 TR 26.998. |
| SA#107 (11 – 14 March 2025, Korea) | * Submit TR 26.xxx for information |
| SA4#131-e (7 – 11 April 2025, Online) | * Mapping of spatial computing functions to the architecture defined in TS 26.506.   + Document procedures, flows, configurations, and transport protocols. * Identify gaps to support XR spatial description handling, with a focus on real-time scenarios.   + based on relevant use cases from 3GPP SA1 TR 22.856 and SA4 TR 26.998. * Study interactions and cross-operation between with other media service enablers and architectures.   + with focus such as TS 26.565 and potential interactions with AI/ML architectures in TR 26.927. |
| SA4#132 (19 – 23 May 2025, Japan) | * Mapping of spatial computing functions to the architecture defined in TS 26.506.   + Document procedures, flows, configurations, and transport protocols. * Identify gaps to support XR spatial description handling, with a focus on real-time scenarios.   + based on relevant use cases from 3GPP SA1 TR 22.856 and SA4 TR 26.998. * Study interactions and cross-operation between with other media service enablers and architectures.   + with focus such as TS 26.565 and potential interactions with AI/ML architectures in TR 26.927. * Finalize conclusions of the TR. |
| SA#108 (10 – 13 June 2025, China) | * Send TR 26.xxx to SA for approval. |

# Proposal

It is proposed to agree on the time and work plan as described in Section 2.