**3GPP TSG-SA5 Meeting #154 *S5-241586rev1***

**Changsha, China, 15-19 April 2024**

**Source: China Telecom**

**Title: Rel-19 New WID on Charging Aspects of Ranging and Sidelink Positioning**

**Document for: Approval**

**Agenda Item: 7.2**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: Charging aspects of Ranging and Sidelink Positioning

Acronym: Ranging\_SL\_CH

Unique identifier:

Potential target Release: Rel-19

# 1 Impacts

{For Normative work, identify the anticipated impacts. For a Study, identify the scope of the study}

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  | X |  | X |  |
| No |  |  | X |  |  |
| Don't know | X |  |  |  | X |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
|  | Study  |
|  | Normative – Stage 1 |
| X | Normative – Stage 2 |
| X | Normative – Stage 3 |
|  | Normative – Other\* |

**\* Other = e.g. testing**

## 2.2 Parent Work Item

For a brand-new topic, use “N/A” in the table below. Otherwise indicate the parent Work Item.

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| FS\_Ranging\_SL\_CH | SA5 | 1000009 | Study on Charging Aspects of Ranging and Sidelink Positioning |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 940069 | Study on Ranging based services and Sidelink Positioning | SA2 R18 Study for Ranging based services and Sidelink Positioning (TR 23.700-86) |
| 980015 | (Stage 2 of Ranging\_SL) Architecture Enhancement to support Ranging based services and Sidelink Positioning | SA2 R18 Work Item for Architecture Enhancement to support Ranging based services and Sidelink Positioning (TS 23.586) |

# 3 Justification

SA5 has studied the charging aspects of Ranging and Sidelink Positioning in TR 28.845, which identified the business roles, potential charging scenarios and requirements, and developed and evaluated the potential solutions for the charging aspects for Ranging and Sidelink Positioning:

* 5GS charging for Ranging/Sidelink Positioning UE Discovery
* 5GS charging for UE positioning assisted by Sidelink Positioning and involving 5GC
* 5GS charging for UE only Sidelink Positioning for Target UE using Located UE
* 5GS charging for Ranging/SL Positioning service exposure

As recommended in TR 28.845, normative work is required for Ranging and Sidelink Positioning Charging in Rel-19.

# 4 Objective

The objective of this work item is to specify the business relationships, requirements and solutions for Ranging and Sidelink Positioning Charging. Specifically, the areas of work for SA5 include:

* WT-1: Support of architecture for converged charging for Ranging and Sidelink Positioning
* WT-2: Support of converged charging for Ranging/Sidelink Positioning UE Discovery
* WT-3: Support of converged charging for UE positioning assisted by Sidelink Positioning and involving 5GC
* WT-4: Support of converged charging for UE only Sidelink Positioning for Target UE using Located UE
* WT-5: Support of converged charging for Ranging/SL Positioning service exposure

This work will be based on the corresponding conclusions documented in the TR 28.845.

## TU estimates and dependencies

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Work Task ID | TU Estimate(Study) | TU Estimate(Normative) | RAN Dependency(Yes/No/Maybe)  | SA Dependency(Yes/No/Maybe) | Non-3GPP Dependency(Yes/No/Maybe) |
| WT-1 | 0 | 1.5 | No | Yes | No |
| WT-2 | 0 | 1 | No | Yes | No |
| WT-3 | 0 | 1 | No | Yes | No |
| WT-4 | 0 | 1 | No | Yes | No |
| WT-5 | 0 | 1 | No | Yes | No |

Total TU estimates for the study phase: 0

Total TU estimates for the normative phase: 5.5

Total TU estimates: 0+5.5=5.5

# 5 Expected Output and Time scale

|  |
| --- |
| New specifications {One line per specification. Create/delete lines as needed} |
| Type  | TS/TR number | Title | For info at TSG#  | For approval at TSG# | Rapporteur |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| TS 32.240 | Introduce GMLC in charging architecture for Ranging and Sidelink Positioning charging | TSG SA#105(Sep 2024) |  |
| TS 32.290 | Update common converged charging service description | TSG SA#106(Dec 2024) |  |
| TS 32.271 | Enhancement to support the Ranging and Sidelink Positioning service | TSG SA#106(Dec 2024) |  |
| TS 32.291 | Update Nchf\_ConvergedCharging service API with definitions that are specific to Ranging and Sidelink Positioning charging | TSG SA#107(Mar 2025) |  |
| TS 32.298 | Ranging and Sidelink Positioning charging related Charging Data Record (CDR) description | TSG SA#107(Mar 2025) |  |

# 6 Work item Rapporteur(s)

Zhiwei Mo, China Telecom, mozw<at>chinatelecom<dot>cn

# 7 Work item leadership

SA5

# 8 Aspects that involve other WGs

SA2 will be involved to update the service message between UE and AMF.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| China Telecom |
| Xiaomi |
| CATT |
| Verizon |
|  |