**3GPP TSG-SA5 Meeting #162 *S5-25xxxx***

**Goteborg, Sweden, 25 - 29 August 2025**

**Source: China Telecom (Moderator)**

**Title: New SID on Charging Aspects of 6G System**

**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: Study on Charging Aspects of 6G System

Acronym: FS\_6G\_CH

Unique identifier:

Potential target Release: Rel-20

# 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 |  |
| No | X | X | X |  |  |
| Don't know |  |  |  |  | X |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
| X | Study  |
|  | Normative – Stage 1 |
|  | Normative – Stage 2 |
|  | 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) |
|  |  |  |  |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 1050110 | Study on 6G Use Cases and Service Requirements | SA1 Study for 6G Use cases and Services Requirements |
| 1080057 | Study on Architecture for 6G System | SA2 Study for 6G System Architecture |

**Dependency on non-3GPP (draft) specification:**

# 3 Justification

The 5G era has revolutionized mobile communication, with 5G charging adopting a converged charging architecture, a new service-based interface, and charging solutions for diverse services. The experiences gained from 5G charging provide a valuable foundation for 6G transition.

The 3GPP 6G network will introduce new services such as AI, Integrated Sensing and Communication, Computing. These will generate massive data with diverse values, leading to charging requirements that differ from 5G. This demands not only new business models and metrics beyond 5G volume/time/event-based charging, but also a novel charging architecture and solutions for 6G new services.

3GPP SA1 has already initiated the FS\_6G\_REQ study item to identify 6G use cases and service requirements. 3GPP SA2 has launched the FS\_6G\_ARC study item to investigate 6G system architecture.

Therefore, this study will focus on the evolution of 6G charging, specifically investigating new charging opportunities, architecture, and solutions for the 6G era.

# 4 Objective

The objective of this study is to study the charging aspects of 6G system:

WT-1: Study 6G new charging opportunities including the following aspects (CH Prime):

WT-1.1: New business models in the 6G era

WT-1.2: Potential charging requirements, including novel charging metrics beyond volume/time/event

WT-2: Investigate the evolution of charging architecture and charging mechanism including the following aspects (CH Prime):

 WT-2.1: Flexible charging mechanism across diverse networks, services and resource

WT-2.2: Simplified Architecture: avoid multiple architecture options

 WT-2.3: Enhanced charging information collection and reporting

 WT-2.4: Enhanced failure handling and charging mechanism reliability

WT-2.5: Interworking of 6G charging system with existing networks and charging systems

WT-3: Investigate the charging aspects of new 6G services (CH support to network)

WT-3.1: Potential charging solutions to support new 6G services, e.g., AI, Integrated Sensing and Communication, Computing

WT-3.2: Policy and charging coordination

WT-3.3 Generic charging aspects, including e.g. extension of use NWDAF and Service-Based Management Architecture (SBMA) logical Management Functions (MnFs)

WT-3.4 Investigate on data framework (refer WT#5 in FS\_6G\_ARC (SP-250806)) and also on NWDAF evolution

WT-3.5 Investigate potential charging requirements, principles and solutions for the support and enablement of the use of AI in 6G

## 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-1.1 | 2.5 | 0 | No | No | No |
| WT-1.2 | 3 | 0 | No | No | No |
| WT-2.1 | 3.5 | 0 | No | No | No |
| WT-2.2 | 2 | 0 | No | No | No |
| WT-2.3 | 2 | 0 | No | No | No |
| WT-2.4 | 2 | 0 | No | No | No |
| WT-2.5 | 1.5 | 0 | No | No | No |
| WT-3.1 | 5 | 0 | No | Yes | No |
| WT-3.2 | 2 | 0 | No | Yes | No |
| WT-3.3 | 3.5 | 0 | No | Yes | No |
| WT-3.4 | 2 | 0 | No | Yes | No |
| WT-3.5 | 2 | 0 | No | Yes | No |

# 5 Expected Output and Time scale

***{If this WID covers both stage 2 and stage 3, clearly indicate the different completion dates.}***

|  |
| --- |
| 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 |
| TR | 32.xxx | Study on Charging Aspects of 6G System | TSG SA#115 (March 2027) | TSG SA#116 (June 2027) |  |
|  |  |  |  |  |  |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
|  |  |  |  |
|  |  |  |  |

# 6 Work item Rapporteur(s)

# 7 Work item leadership

SA5

# 8 Aspects that involve other WGs

None identified yet

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| China Telecom |
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