**3GPP TSG-SA5 Meeting #162 *S5-253832***

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

**Source: China Telecom (Moderator)**

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

**Document for: Approval**

**Agenda Item: 5.5**

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 and enhanced services such as AI, Integrated Sensing and Communication, NTN. These will generate massive data with diverse values, leading to charging requirements that differ from 5G. This may imply new business models and metrics beyond 5G volume/time/event-based charging, as well as the impacts on charging architecture and solutions for 6G 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 6G charging, specifically new business models, impacts on charging architecture, and solutions for the 6G era.

# 4 Objective

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

WT-1: Study new 6G business models, including potential new charging metrics. (CH Prime)

WT-2: Study the 6G charging architecture and charging mechanism, including the following aspects (CH Prime):

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

WT-2.2: Enhanced charging information collection and reporting

 WT-2.3: Enhanced failure handling and charging mechanism reliability

WT-2.4: Interworking of 6G charging system with network functions and charging systems

WT-3: Study the charging aspects of 6G services and frameworks including (CH support to network):

WT-3.1: Potential charging solutions to support 6G services as required in SA1 TR 22.870 and specified in SA2 TR 23.801-01, e.g., AI, Integrated Sensing and Communication, NTN

WT-3.2: Potential charging aspects on new frameworks specified in SA2 TR 23.801-01, e.g., data framework

NOTE: The WT-3 has a dependency on the progress of SA2.

## 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 | 6 | 0 | No | No | No |
|  |  |  |  |  |  |
| WT-2.1 | 4 | 0 | No | No | No |
| WT-2.2 | 2 | 0 | No | No | No |
| WT-2.3 | 2 | 0 | No | No | No |
| WT-2.4 | 4 | 0 | No | No | No |
|  |  |  |  |  |  |
| WT-3.1 | 6 | 0 | No | Yes | No |
| WT-3.2 | 4 | 0 | No | Yes | No |
|  |  |  |  |  |  |

Total TU estimates for the study phase: 28

Total TU estimates for the normative phase: 0

Total TU estimates: 28

# 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 | 28.xxx | Study on Charging Aspects of 6G System | TSG SA#114 (Dec 2026) | TSG SA#xxx (TBD) |  |

# 6 Work item Rapporteur(s)

# 7 Work item leadership

SA5

# 8 Aspects that involve other WGs

Potential collaboration with SA1, SA2 and SA5 OAM

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| AT&T |
| CATT |
| China Mobile |
| China Telecom |
| China Unicom |
| CSCN |
| Huawei |
| MATRIXX Software |
| Verizon? |
| ZTE |
|  |