**3GPP TSG-SA WG1 Meeting #105 S1-240xxx**

**Athens, Greece, 26 February – 1 March 2024** *(revision of S1-240244, S1-240103)*

**Source: Nokia, Nokia Shanghai Bell, China Mobile**

**Title: New SID: Study on user interactivity in the IMS**

**Document for: Discussion**

**Agenda Item: 7**

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 user interaction in the IMS

Acronym: FS\_IMSUserInteract

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 |  | x |  |
| No |  |  | 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) |
|  |  | N/A |  |

## 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| N/A |  |  |

# 3 Justification

Network operators have interest in enabling their IMS users to directly interact with them and their provided services in a variety of use cases and scenarios by allowing innovative engagement from users as a potential way to optimize their network, reduce churn or enable new revenue opportunities. User interaction in the IMS can be enabled eg by providing opportunities to take actions such as providing feedback or accessing additional services. For example, the collected user feedback can be used to improve their network operations as well as the overall user experience and satisfaction.

In the context of IP Multimedia Subsystem (IMS) services, various scenarios could be addressed, as an opportunity for the network operator to take follow-up actions based on a received user feedback, e.g.

* Report robocall/spam callers or messengers to the network, e.g., to mark/block spam numbers
* Call quality/rating feedback (e.g., from “poor” to “excellent”), e.g., to help the network to improve its QoE
* Flag inappropriate/abuse content (e.g., avatar)
* Rating of IMS Data Channel applications in the DC app catalogue

Contextual information may be provided together with such interactive feedback opportunities to assist and/or influence user behaviour (eg current number of “likes” or already reported spams, current rating of DC application etc).

Furthermore, additional opportunities to propose users to use other services could be provided contextually to an incoming message or session, for example to connect to an AI-based virtual assistant to help summarizing the ongoing conference call, or to react to CAT/CRS audio/video, for example like/dislike/subscribe.

Such functionalities may further be exposed to trusted third parties as a business opportunity for the operator to extend it to scenarios involving such parties (e.g., CAT/CRS audio/video content providers).

Thus, it is proposed to appropriately study the potential use cases related more generally to direct user interaction with network operators in the context of IMS services and identify proper service requirements, whilst analysing existing available features which could already address them.

# 4 Objective

This study is aiming at identifying use cases, providing gap analysis and defining potential requirements to enable the IMS system supporting direct user interaction allowing operators to control the interaction opportunities, access to actual user feedback and react accordingly.

The objectives include:

* + Identify possible use cases and service requirements related to enabling user interactions under network operator control in the context of IMS services (e.g. user feedback reporting), including:
    - Enabling direct user interaction targeting the operator (e.g., call quality, spam reporting)
    - Enabling a network operator to authorize 3rd parties to propose user interaction opportunities and to retrieve the related user-provided information (e.g., collected feedback such as rating, like/dislike)
    - Support the enabled user interaction opportunities under study to be restricted by a network operator (e.g., to specific predefined and/or pre-formatted actions, to network-initiated user interaction opportunities only).
  + Provide a gap analysis between the identified potential new requirements and existing functionalities of IMS and 5GS.
  + Other aspects including security & privacy, roaming and charging are considered.

Note: HMI requirements are out of scope of this study.

# 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 |
| TR |  | Study on user interaction in the IMS | SA#107 (Mar 2025) | SA#108 (Jun. 2025) | Nokia |

|  |  |  |  |
| --- | --- | --- | --- |
| 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)

Nokia

# 7 Work item leadership

SA1

# 8 Aspects that involve other WGs

Specifications regarding IMS.

# 9 Supporting Individual Members

{At least 4 supporting Individual Members are needed. There is an expectation that these companies will provide resources to progress the work. Note that having 4 supporting companies is a necessary but not sufficient condition: the usual TSG approval process by consensus is needed for the WID approval}

|  |
| --- |
| Supporting IM name |
| Nokia |
| Nokia Shanghai Bell |
| Telefonica |
| China Mobile |
| Huawei |
| Qualcomm |
| Samsung |
| Ericsson |
| Vodafone |
| TIM |
|  |