**3GPP TSG-SA5 Meeting #158 *S5-246589***

Orlando, USA, 18 - 22 November 2024

**Title: LS on progress of 3GPP SA5 R19 work on intent driven management**

**Response to:**

**Release: 3GPP Rel-19**

**Work Item: FS\_IDMS\_MN\_Ph3**

**Source: SA5**

**To: TM Forum, ETSI ZSM, ETSI NFV IFA, ITU-T SG2, ITU-T SG13, GSMA OPG**

**Cc: 3GPP TSG SA**

**Contact person: Ruiyue XU**

[**xuruiyue@huawei.com**](mailto:xuruiyue@huawei.com)

**Mark Scott**

[**mark.scott@ericsson.com**](mailto:mark.scott@ericsson.com)

**Send any reply LS to: 3GPP Liaisons Coordinator,** [**mailto:3GPPLiaison@etsi.org**](mailto:3GPPLiaison@etsi.org)

**Attachments:** None

# 1 Overall description

Intent driven management for mobile networks is an important topic introduced in 3GPP SA5 as user-friendly API to allow a consumer to provide intents as the desired state of the network or its services, without any detailed information of how to get to the desired state. 3GPP SA5 started the work item intent driven management for mobile networks since 2018, and completed its Release 17 and Release 18 work on the intent driven management services for mobile networks in June 2022 and December 2023, corresponding published specification is TS 28.312 (Management and orchestration; Intent driven management services for mobile networks).

* TS 28.312 (Management and orchestration; Intent driven management services for mobile networks). Available at:

<https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3554>

3GPP SA5 would like to inform that it has completed its Release 19 study on intent driven management service for mobile network phase 3. Main outcomes include (non-exhaustive list):

1. New requirements for additional intent driven management functionalities, including:

* Intent negotiation functionalities, including Intent negotiation functionalities in intent pre-evaluation phase (specifically Intent feasibility check and Intent exploration), Intent negotiation functionalities in Intent fulfilment phase (specially checking for fulfillable outcomes, checking for best possible outcome, recommending fulfillable intent targets and contexts, advises on preferred alternatives), and Methods by which consumers can express the relative value of an intent's expectations to assist the IDMS producer(s) in fulfilling their intents in the most acceptable manner, including Intent Utility Function and satisfaction index.
* Implicit intent report subscription with customized requirements.
* Intent handling state management.
* Intent handling capability enhancement, specifically the capability to provide a description of the supported scenario specific intents.
* Intent degradation based on expectation preference.
* Enablers for Intent Fulfilment.

2. New scenarios for intent driven management, including“

* Enhance the RadioServiceExpectation to support the scenario of delivering a radio service in a scheduled time scenario.
* Enhance the RadioNetworkExpectation to support following scenarios: RAN energy saving scenario, Radio network traffic assurance for scheduled events scenario, Radio network support for UAV pre-flight preparation and Radio Network support MOCN undifferentiated radio service.
* Introduce communication service expectation for communication service delivering and assurance

3. Guidelines for using intent generic information model to support new scenario which is not standardized.

Reference documents are:

* TR 28.914 (Study on intent driven management service for mobile network phase 3). Available at:

<https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=4272>

3GPP SA5 has now initiated its Release 19 work item on Intent driven Management Service for mobile network phase 3 based on R17 and R18 intent work and outcome of R19 study work on intent driven management service for mobile network phase 3.

Reference documents are:

* S5-246125 (New WID on intent driven management services for mobile network phase 3). Available at: <https://www.3gpp.org/ftp/tsg_sa/WG5_TM/TSGS5_157/Docs/S5-246125.zip>

# 2 Actions

To TM Forum, ETSI ZSM, ETSI NFV IFA, ITU-T SG2, ITU-T SG13, GSMA OPG: please take the above information into consideration for corresponding intent management work in your organization.

# 3 Dates of next TSG SA WG5 meetings

SA5#159 17 February - 21 February 2025 Sophia-Antipolis, France

SA5#160 07 April - 11 April 2025 Gothenburg, Sweden