**3GPP TSG-SA5 Meeting #156 *S5-244657***

Maastricht, The Netherlands, 19 - 23 August 2024

**Source: Ericsson, Deutsche Telekom**

**Title: Add solution for WT-5 approach for network slice delivering and assurance**

**Document for: Approval**

**Agenda Item: 6.19.3**

# 1 Decision/action requested

***The group is asked to discuss and approve the detailed proposal.***

# 2 References

[1] 3GPP TR 28.836: "Study on intent-driven management for network slicing"

[2] 3GPP [TS 28.312](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3554): "Management and orchestration; Intent driven management services for mobile networks"

# 3 Rationale

The contribution addresses WT-5 of the study item description: “Intent driven approach for network slicing delivering and assurance”. Taking into consideration the result of the study on intent-driven management for network slicing, [1] which provides the conclusion that dataTypes defined in TS 28.312 [2] could be used to express network slice requirements, and the recommendation that requirements from an NSC currently captured as ServiceProfile, RANSliceSubnetProfile or CNSliceSubnetProfile parameters could be captured as Intent expectations.

Currently there is no description in TS 28.312 [2] on how this can be achieved as there is no expectation defined that covers the case for delivering and assurance of a service across a RAN and 5GC.

This contribution proposes a solution description for addressing the use case where an intent can be handled for delivering and assurance of a communication service spanning a RAN and 5GC.

# 4 Detailed proposal

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| **1st Change** |

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 28.312: "Management and orchestration; Intent driven management services for mobile networks"

[3] 3GPP TS 28.541: "Management and orchestration; 5G Network Resource Model (NRM); Stage 2 and stage 3".

[4] 3GPP TS 28.622: "Telecommunication management; Generic Network Resource Model (NRM); Integration Reference Point (IRP); Information Service (IS)".

[5] TM Forum IG1253: "Intent in Autonomous Networks v1.2.0".

[6] ETSI ZSM011: "Intent-driven autonomous networks V2.0.2".

[7] 3GPP TR 28.912: "Study on enhanced intent driven management services for mobile networks"

[8] 3GPP TS 28.552: "Management and orchestration; 5G performance measurements"

[9] 3GPP TR 22.843: "Study on Uncrewed Aerial Vehicle (UAV) Phase 3".

[10] 3GPP TS 22.125: " Uncrewed Aerial System (UAS) support in 3GPP".

[11] 3GPP TS 28.552: "Management and orchestration; 5G performance measurements".

[12] 3GPP TS 28.554: "Management and orchestration; 5G end to end Key Performance Indicators (KPI) ".

[13] TMF TR291I “Utility Extension Model”, v3.5.0 DRAFT

[14] TMF TR292H “Mathematical Functional Ontology”, v3.4.0

[15] TMF TR292C “Function Definition Ontology”, v3.4.0

[x] 3GPP TR 28.836: "Study on intent-driven management for network slicing"

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| **2nd Change** |

## 5.X Intent containing an expectation for delivering a communication service

### 5.X.1 Description

Currently the intent driven management service specification TS 28.312 [2] does not have a solution for the scenario where an MnS consumer can request an expectation to deliver and assure a service that spans a RAN and 5GC. In the study on intent-driven management for network slicing TR 28.836 [x] it was observed that the ServiceProfile could be used to express the NSC requirements for delivery and assurance of the NSC requested communication services.

### 5.X.2 Potential requirements

**REQ-IDMS\_CommunicationServiceIntent -CON-1** The intent driven MnS producer for communication services shall have capability enabling an MnS consumer to express intent containing an expectation for delivering communication services for the specified area.

**REQ-IDMS\_CommunicationServiceIntent-CON-2** The intent driven MnS producer for communication services shall have capability enabling MnS consumer to obtain intent report information (including fulfilment information) for the intent containing an expectation for a communication service.

### 5.X.3 Potential solutions

* Add new expectation for delivering communication services.
* The ObjectType for CommunicationService is currently not defined in NRM. The ObjectType for a communication service expectation can be a NetworkSlice which are defined in NRM.

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| **3rd Change** |

# 6 Conclusions and recommendations

Editor's note: this clause will contain conclusions and recommendations for corresponding use cases identified in clause 5.

## 6.X Introduce expectation for communication service

It is recommended to start the normative work to define the intent expectation for communication service.

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| **End of Changes** |