3GPP TSG SA WG5 Meeting 137-e TDoc S5-213410rev2

electronic meeting, online, 10 - 19 May 2021

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **28.535** | **CR** | 0041 | **rev** | 1 | **Current version:** | 17.1.0 |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **x** | Core Network | **x** |

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|  |
| ***Title:***  | Use case for feasibility check of an ACCL goal |
|  |  |
| ***Source to WG:*** | S5 |
| ***Source to TSG:*** | Lenovo, Motorola Mobility |
|  |  |
| ***Work item code:*** | eCOSLA |  | ***Date:*** | 2021-04-30 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | Prior to configuring a goal, the feasibilit of configuring he same should be recursively verified |
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| ***Summary of change:*** | Add new scenario to support the feature |
|  |  |
| ***Consequences if not approved:*** | Missing critical feature to support multi-domain configuration |
|  |  |
| ***Clauses affected:*** | 6.1.x (new), 6.2 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  |  |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  |  |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

 **Start of Change 1**

# 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 22.261: "Service requirements for the 5G system".

[3] 3GPP TS 28.550: "Management and orchestration; Performance assurance".

[4] 3GPP TS 28.531: "Management and orchestration; Provisioning".

[5] ETSI GS ZSM 002 (V1.1.1) (2019-08): "Zero-touch network and Service Management (ZSM); Reference Architecture".

[6] 3GPP TS 28.545: "Management and orchestration; Fault Supervision (FS)".

[7] 3GPP TS 28.552: "Management and orchestration; 5G performance measurements".

[8] 3GPP TS 28.554: "Management and orchestration; 5G end to end Key Performance Indicators (KPI)".

[9] 3GPP TS 28.532: "Management and orchestration; Generic management services".

[10] 3GPP TS 28.541: “Management and orchestration; 5G Network Resource Model (NRM); Stage 2 and stage 3”

 **Start of Change 2**

### 6.1.x Feasibility check of assurance goal in a 3GPP management system

An operator 3GPP network may be composed of RAN, Core and TN domains. The consumer of an assurance closed loop configures an assurance goal on a managed entity (example: communication service or a network slice) in the 3GPP management system. This may lead to additional goals or conditions (example: threshold notfications) at the NSI or the NSSI level ACCLs being configured in other technology domains (example: transport, core or RAN management domain). When assurance goals are related to a communication service, they are determined by the service profile or the sliceprofile as presented in TS 28.541[10]. Other assurance goals (for example those not related to a serviceprofile or sliceprofile) may be directly configured by the operator.

Since the configuration of a goal at the communication service or at NSI level may lead to goals or conditions being configured at NSSI (or NF or infrastructure) level in multiple domains, prior to configuring those goals or conditions a feasibility check for their configurability is required to maintain network consistency across domains. After a successful the feasibility check the goals or the conditions at the NSSI (or NF) level the 3GPP management system may create those ACCLs in the respective MnS producers.

The MnS consumer provides the original assurance goal to be configured on the communication service or NSI level to the MnS producer. The MnS producer to first checks if the corresponding goals or conditions at the NSSI (or NF) level are feasible and then finally if the goal at the NSI level is feasible. If feasible, the MnS prodcuer configures the said goals or conditions and notifies the MnS consumer of a successful configuration. Furthermore, the 3GPP system may be further integrated with non 3GPP systems to provide a communication service and therefore the MnS consumer may also first request feasibility check of an assurance goal prior to its configuration.

**Start of Change 3**

## 6.2 Requirements

**REQ-CSA-CON-01** The 3GPP management system shall have the capability to take actions for a set of communication services serving certain group of UEs based on the target SLS.

**REQ-CSA-CON-02** The 3GPP management system shall have the capability to collect service experience information.

**REQ-CSA-CON-03** The 3GPP management system shall have the capability to analyse the performance information related to the set of communication services serving certain group of UEs.

**REQ-CSA-CON-04** The 3GPP management system shall have the capability to modify the configuration parameters related to the set of communication services serving certain group of UEs.

**REQ-CSA-CON-05** The 3GPP management system shall have the capability to collect NSI related data from one or more 5GC NF(s).

NOTE 1: An example for NSI related data may be QoE data.

**REQ-CSA-CON-06** The 3GPP management system shall have the capability to derive which communication service is associated to the QoE data from the collected NSI related QoE data.

**REQ-CSA-CON-07** The 3GPP management system shall have the capability to ascertain SLS breach.

**REQ-CSA-CON-08** The 3GPP management system shall have the capability to perform the root cause analysis (e.g., identifying the underlying reason) for an SLS breach.

**REQ-CSA-CON-09** The 3GPP management system shall have the capability to take corrective actions against the root cause identified.

**REQ-CSA-CON-10** The 3GPP management system shall have the capability to translate communicate service requirements to cross domain SLS goal and single domain SLS goal.

**REQ-CSA-CON-11** The 3GPP management system shall have the capability to collect single domain SLS analysis as input to cross domain SLS analysis.

**REQ-CSA-CON-12** The 3GPP management system shall have the capability to allow its authorized consumer to control the SLS assurance (e.g. specify the SLS to be assured, enable/disable, specify the assurance time and update the SLS assurance requirements).

**REQ-CSA-CON-13** The 3GPP management system shall have the capability to allow its authorized consumer to obtain the SLS assurance progress information and fulfil information.

NOTE 2: The management system refers to the producer of management service for SLS assurance.

**REQ-CSA-CON-14** The 3GPP management system shall have the capability to do network prediction (e.g. network resource usage and network performance) by analysing the network operation information in special scenarios.

**REQ-CSA-CON-15** The 3GPP management system shall have the capability to take actions such asnetwork configuration and perform network resource reallocation according to the network prediction results.

**REQ-CSA-CON-16** The 3GPP management system shall have the capability to allow its authorized consumer to limit the set of action capabilities executable by an assurance closed loop.

**REQ-CSA-CON-17** The 3GPP management system shall allow an authorized consumer to set a condition to enable/disable an ACCL.

**REG-CSA-CON-X** The 3GPP management system shall have the capability to check the feasibility of configuring a ACCL goal.

**End of Changes**