**3GPP** **TSG SA WG5 Meeting 134-e**  **S5-206278r2**

**electronic meeting, online, 16th - 25th November 2020**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **28.535** | **CR** | **0021** | **rev** | **0** | **Current version:** | **16.1.0** |  |
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| *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 |  | Core Network |  |

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| ***Title:***  | Add use case for triggering assurance loop state change |
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| ***Source to WG:*** | Lenovo, Motorola Mobility |
| ***Source to TSG:*** | S5 |
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| ***Work item code:*** | eCOSLA |  | ***Date:*** | 2020-11-06 |
|  |  |  |  |  |
| ***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:*** | Different assurance loops may run on different times in the 3GPP network and may be required to be activated (or deactivated) under different conditions for example: a sharp increase in network load may trigger a temporary deactivation of in EE ACL operation or vice versa. This use case enable such triggers: such as threshold crossings to be associated with state changes of ACLs. |
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| ***Summary of change:*** | Add new use case and requirements to associate threshold crossings and other triggers with state changes of a closed loop |
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| ***Consequences if not approved:*** | 6.1.X(new), 6.2 |
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| ***Clauses affected:*** |  |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| **1st Modified Section** |

# 6 Specification level use cases and requirements

## 6.1 Use cases

## 6.1.x Trigger based Assurance Closed Control Loop (ACCL) state change

The goal of this use case is to provide the consumer of an assurance closed loop the ability to set conditions (example threshold crossings) in the 3GPP management system that when met trigger changes in ACCL state (enable or diable an ACCL). This implies that an ACCL may be activated or deactivated if the set condition in the 3GPP network is met (example: the threshold is crossed).

Assurance closed loops may be required to run at different times and network conditions in the 3GPP network. For example, an ACCL related to handover optimization may only execute when the handover failure crosses a certain threshold. Similarly, an ACCL managing energy efficiency may be disabled when the network is overloaded beyond a certain threshold. These conditions (network overload, handover failure threshold crossing) can therefore be associated with a change in state (enable/disable) of an ACCL to further support autonomy of the 3GPP management domain.

An authorized entity (authorized consumer of the ACCL), for example, another closed loop or operator, should be able to configure the condition and its association with an ACCL state transition (enable/disable) in the 3GPP management domain.

The 3GPP management system shall therefore provide the ability to configure conditions and associate them with the state transition of an ACCL. The 3GPP management system then configure appropriate listeners to monitor the configured threshold crossing and once triggered execute a state transition (enable/disable) of the associated ACCL.

The MnS consumer obtains the possible conditions as well as the possible ACCL state transitions they can be associated with. The MnS consumer may then configure condition in the 3GPP network. When the threshold crossing notification is received the MnS producer it executes the associated state transition (enable/disable) of the ACCL.

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| **2nd Modified Section** |

## 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-X** The 3GPP management system shall allow an authorized consumer to set conditions in the 3GPP system that when met can enable/disable an ACCL..

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| **End of modifications** |