**3GPP TSG-SA5 Meeting #129e *S5-201314rev1***

**e-meeting, 24 February – 4 March 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **28.533** | **CR** | **0060** | **rev** | **-** | **Current version:** | **16.2.0** |  |
|  |
| *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:***  | Add the cooperation with CN and RAN |
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| ***Source to WG:*** | Huawei, Ericsson |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | COSLA |  | ***Date:*** | 2020-02-14 |
|  |  |  |  |  |
| ***Category:*** | B |  | ***Release:*** | Rel-16 |
|  | *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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | Management system has the overall view of the network and the architecture should reflect the coordination with CN and RAN network.  |
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| ***Summary of change:*** | Add description of management cooperation with CN and RAN network. |
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| ***Consequences if not approved:*** | The cooperation between management, CN and RAN network are missing in the specification. |
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| ***Clauses affected:*** | 5.X (new) |
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|  | **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 Change** |

## 5.X Cooperation with Core network and RAN

Coordination may be needed between the 3GPP management system, Core network and RAN to provide closed loop assurance in a coordinated way as shown in figure 5.x.1. The 3GPP management system provides the closed loop assurance from the management perspective based on the collected management data. Core network and RAN contribute to the decision from the control plane and user plane perspective. There may be multiple loops according to operator needs.



Figure 5.x-1: Cooperation between 3GPP management system, CN and RAN

1) Management closed loops need interaction with NFs in Core network and RAN.

2) Parts of assurance loops can be delegated to NF level control signalling loops as per operator need, deployment complexity and the specific CSI requirements, said loops also acting on user plane.

3) In cases where MnS delegates assurance to NF level loops, the MnS ensures NF loops actions are coordinated to achieve the desired effect.

4) Delegation scenarios may include Hybrid with RAN control loop and MnS control loop only, or vice versa, depending on the specific RAN and Core NSSI instance at hand.

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| **Second Change** |

Annex X (informative): Examples of hybrid Assurance solutions

 This Annex provides two examples of hybrid Assurance solutions as shown in Figure X.1 and X.2. The management control loops are used for cross-domain assurance purposes and for domain assurance (RAN and CN) purpose, in the RAN and CN domain there may or may not be domain specific assurance loops in operation,



Figure X.1: Hybrid assurance solution with distributed CN assurance



Figure X.2:Hybrid assurance solution with distribtued RAN assurance

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| **End of Changes** |