**3GPP TSG-SA5 Meeting #136-eS5-213316**

**10 May 2021 - 19 May 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **28.554** | **CR** | **0075** | **rev** | **1** | **Current version:** | **17.2.0** |  |
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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 | **x** | Core Network |  |

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| ***Title:***  | Rel-17 CR 28.554 Update the Accessibility KPI to cover DRB access via RRC Resume |
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| ***Source to WG:*** | Ericsson LM, Nokia |
| ***Source to TSG:*** | S5 |
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| ***Work item code:*** | ePM\_KPI\_5G |  | ***Date:*** | 17 |
|  |  |  |  |  |
| ***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:*** | The current definition of the KPI DRB Accessibility for UE services, does not cover accesses that are made using the RRC Resume procedure and accesses made using the procedures of fallback to RRC Setup from RRC Resume or RRC Re-establishment procedures. |
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| ***Summary of change:*** | The existing KPI named “DRB Accessibility for UE services” has been renamed to reflect it only includes accesses that are made using the RRC Resume procedure. Annex is updated to indicate there are multiple DRB Accessibility KPIs now defined. |
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| ***Consequences if not approved:*** | The existing KPI named “DRB Accessibility for UE services” could be confused with the new KPI named “Total DRB Accessibility…”. |
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| ***Clauses affected:*** | 6.2.4, A.9 |
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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 28.552 CR 0078 |
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| ***Other comments:*** | Rev1 removes content now covered in separate submission (S5-213052) adding a new KPI (“Total DRB Accessibility for UE services”). The impact to sec 6.2.4 and sec A.9 are updated. |
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| ***This CR's revision history:*** | S5-212068 |

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| **1st modified section** |

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### 6.2.4 Partial DRB Accessibility for UE services

a) Partial DRB Accessibility

b) This KPI describes the DRBs setup success rate, including the success rate for setting up RRC connection and NG signalling connection. It is obtained as the succeess rate for RRC connection setup multiplied by the success rate for NG signalling connection setup multiplied by the success rate for DRB setup. The success rate for RRC connection setup and for NG signalling connection setup shall exclude setups with establishment cause mo-Signalling [5]. It is a percentage. The KPI type is RATIO.

c) Partial DRBAccessibility 5QI = (∑RRC.ConnEstabSucc.*Cause*/∑RRC.ConnEstabAtt.*Cause*) \* (∑UECNTXT.ConnEstabSucc.*Cause*/∑ UECNTXT.ConnEstabAtt.*Cause*) \* (DRB.EstabSucc.5QI/DRB.EstabAtt.5QI) \* 100

Partial DRB Accessibility SNSSAI = (∑RRC.ConnEstabSucc.*Cause*/∑RRC.ConnEstabAtt.*Cause*) \* (∑UECNTXT.ConnEstabSucc.*Cause*/∑ UECNTXT.ConnEstabAtt.*Cause*) \* (DRB.EstabSucc.SNSSAI/DRB.EstabAtt.SNSSAI) \* 100.

The sum over causes shall exclude the establishment cause mo-Signalling [5].

For KPI on SubNetwork level the measurement shall be the averaged over all NRCellCUs in the SubNetwork

d) SubNetwork, NRCellCU.

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| **2nd modified section** |

# A.9 Use case for DRB Accessibility-related KPIs

In providing services to end-users, the first step is to get access to the service. First after access to the service has been performed, the service can be used.

The service provided by NG-RAN is the DRB. For the DRB to be successfully setup it is also necessary to setup an RRC connection and an NG signalling connection.

If an end user cannot access a service, it is hard to charge for the service. Also, if it happens often that an end-user cannot access the provided service, the end-user might change wireless subscription provider, i.e. loss of income for the network operator. Hence, to have a good accessibility of the services is important from a business point of view.

The DRB Accessibility KPIs require the following measurements:

- RRC connection setup success rate

- DRB resume success rate

- DRB addition success rate

The success rate for RRC connection setup and for NG signalling connection setup shall exclude setups with establishment cause mo-Signalling, since these phases/procedures occur when there is no request to setup a DRB.

The KPIs are available per mapped 5QI and per S-NSSAI, and assist the network operator with information about the accessibility provided to their 5G network customers.

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| **End of modified section** |