3GPP TSG SA WG5 Meeting 137-e TDoc S5-213455

**electronic meeting, online, 10 - 19 May 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.160** | **CR** | **0013** | **rev** | **4** | **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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | requirement specifications | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2021-02-22 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***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 can be 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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | SA5 produces stage1 management related requirements, it would be better to align the stage1 template as in SA1, it is proposed to update the template for requirement specifications in SA5. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Simplify the template for requirement specifications. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The way of capturing 3GPP requirements specifications are not aligned. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.1, 4.2, 4.3, Annex X(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

|  |
| --- |
| **1st Change** |

# 4 Management service template (stage 1)

## 4.1 General

This template shall be used for the production of all requirement specifications for management and orchestration of 3GPP networks.

Instructions in *italics* below shall not be included in the requirements specifications.

Usage of fonts shall be according to the 3GPP drafting rules in TR 21.801 [5] for a TS (with some basic examples given in the 3GPP TS template).

## 4.2 Template for requirement specifications

R4 <Management capability name>

*The management capability name above shall be replaced with the name of the management capability which is to be specified.*

R4.a Description

*For production of the contents of this clause, describe general information about the management capability.*

R4.b  Use cases

R4.b.1 <XXX Use case> <label>

*For production of the contents of this clause, describe the motivation for one or more of the requirements in R4.c (referring to the requirement label(s)). The use case should also be labelled. The use case is not to clarify how to use a certain feature, and detailed sequence diagrams are not needed for a use case.The use case is to describe what are the benefits of the capability, what it is good for. High level diagrams including sequence diagrams can still be included if needed in order to better describe the use cases and motivate the corresponding requirements.*

*The format of the use case label is UC-xx-yy, where xx represents the abbreviation of the management capability name, yy is the serial number under the corresponding management capability category.*

R4.c Requirements

R4.c.1 Management Capability Requirements

*For production of the contents of this subclause, describe the management capability requirements which are exposed to the consumer. Each requirement shall have a requirement label.*

*The format of the requirement label is REQ-xx-yy-zz, where xx is a unique abbreviation of the service/function and YY is MC (Management Capability), zz is the serial number under the corresponding management capability category.*

*Editor’s Notes: The format of the requirement label should align with 3GPP-wide labels if there is any decision on that (currently under SA discussion).*

|  |  |  |
| --- | --- | --- |
| **Requirement label** | **Description** | **Related use case(s)/Motivation** |
|  |  |  |

R4.c.2 Management Functional Requirements

*For production of the contents of this subclause, describe the management functional requirements which are management implementation related. Each requirement shall have a requirement label.*

*The format of the requirement label is REQ-xx-yy-zz, where xx is a unique abbreviation of the service/function and YY is MF (Management Functional), zz is the serial number under the corresponding management functional category.*

*Editor’s Notes: The format of the requirement label should align with 3GPP-wide labels if there is any decision on that (currently under SA discussion).*

|  |  |  |
| --- | --- | --- |
| **Requirement label** | **Description** | **Related use case(s)/Motivation** |
|  |  |  |

|  |
| --- |
| **2nd Change** |

Annex X (informative): Example usage of the template for one management capability

R4 Monitoring the number of active UEs

R4.a Description

This management capability allows the consumer to monitor and retrieve the number of active UEs statistics information.

R4.b  Use cases

R4.b.1 Monitor of the number of active UEs (UC-4GPM-1)

The number of the active UEs in each cell is a valuable measurment for operators to know how many UEs are with buffered data per cell basis. This kind of information can help operators to tune the admission control parameters for the cell and to do load balancing between cells to ensure that the target percentage or number of the UEs admitted achieve the target QoS. However, the number of single uplink or downlink UEs can not effectively reflect the actual number of active UEs either on the downlink or on the uplink in the network.

As the active UEs reflect UEs have data to transmit or receive , the ratio of the number of active UEs to the number of the RRC connected UEs can be established, which can be used to monitor the the cell. In addition, compared with the number of RRC connected users, the number of active UEs is a more effective measurement to reflect the control plane capacity of wireless network.

R4.c Requirements

R4.c.1 Management Capability Requirements

|  |  |  |
| --- | --- | --- |
| **Requirement label** | **Description** | **Related use case(s)/Motivation** |
| REQ-4GPM-MC-01 | The consumer should have the capability to monitor the number of active UEs. | (UC-4GPM-1) Monitor of the number of active UEs |

R4.c.2 Management Functional Requirements

|  |  |  |
| --- | --- | --- |
| **Requirement label** | **Description** | **Related use case(s)/Motivation** |
| REQ-4GPM-MF-01 | The 3GPP system should have the capability to produce statistics on the number of active UEs. | (UC-4GPM-1) Monitor of the number of active UEs |

|  |
| --- |
| **End of Change** |