**3GPP TSG-SA5 Meeting #140-e *S5-216269***

**e-meeting, 15 - 24 November 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **28.531** | **CR** | **0098** | **rev** | **-** | **Current version:** | **17.1.0** |  |
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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 | **x** | Radio Access Network |  | Core Network |  |

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| ***Title:*** | Modification of network slice related requirements | | | | | | | | | |
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| ***Source to WG:*** | S5 | | | | | | | | | |
| ***Source to TSG:*** | China Mobile | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | EMA5SLA | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***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 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | | After discussing the translating of SLA requirements and updating the related NRM in TS 28.541. It is important to add the use case of network modification once SLA has been modified. | | | | | | | | |
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| ***Summary of change:*** | | New use case and requirements are added. | | | | | | | | |
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| ***Consequences if not approved:*** | | The SLA management part is missing. | | | | | | | | |
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| ***Clauses affected:*** | | 5.1.x, 5.2.x | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **1st Modified Section** |

### 5.1.x Modification of network slice related requirements

| Use case stage | Evolution/Specification | <<Uses>> Related use |
| --- | --- | --- |
| **Goal** | To satisfy the modification of the existed network slice related requirements. |  |
| **Actors and Roles** | Network slice provisioning management service consumer.  NOP |  |
| **Telecom resources** | Network slice instance  Network slice subnet instance  Network slice provisioning management service provider  Network slice subnet provisioning management service provider. |  |
| **Assumptions** | N/A |  |
| **Pre-conditions** | Network slice instance has been created and previous network slice related requirements are satisfied. |  |
| **Begins when** | The network slice provisioning management service provider receives request from its authorized customer with modification of network slice related requirements and decides to perform network management actions.  The new serviceprofile is derived from the new network slice related requirements by the network slice provisioning management service customer. (See note) |  |
| **Step 1 (M)** | If modification of existed network slice instance can satisfy the new network slice related requirements, the network slice provisioning management service provider modifies the existed NSI. The use case is completed and go to “Step 4“.  If modification of network slice instance can not satisfy the new network slice related requirements, the following steps are needed. |  |
| **Step 2 (O)** | If the existing network slice instance is not shared with other services, the network slice provisioning management service provider may decide to terminate the NSI. |  |
| **Step 3 (O)** | The network slice provisioning management service provider allocates a new network slice instance. |  |
| **Step 4 (M)** | The network slice provisioning management service provider sends response to its authorized consumer. |  |
| **Ends when** | All the steps identified above are successfully completed. The network slice provisioning management service provider notifies the network slice instance information of NSI (e.g., the management identifier of NSI). |  |
| **Exceptions** | One of the steps identified above fails. |  |
| **Post-conditions** | A NSI is ready to satisfy the modified network slice related requirements. |  |
| **Traceability** | REQ-PRO\_NSI-FUN-x |  |
| NOTE: The support and viability of this use case is subjected to the availability of CH solution for run-time modification of network slice requirements, as per network slice provisioning management service consumer request | | |

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| **Next Modified Section** |

## 5.2 Requirements

### 5.2.1 Requirements for network slice provisioning service

**REQ-PRO\_NSI-FUN-1** The network slice provisioning service provider shall have the capability allowing its authorized consumer to request a network slice instance.

**REQ-PRO\_NSI-FUN-2** The network slice provisioning service provider shall have the capability allowing its authorized consumer to send the network slice related requirements.

NOTE 1: The network slice related requirements include requirements such as area traffic capacity, charging, coverage area, isolation, end-to-end latency, mobility, overall user density, priority, service availability, service reliability, UE speed; see TS 22.261 [5] where these parameters are defined for end user services.

NOTE 2:The network slice related requirements also include requirements derived from the Generic network Slice Template (GST) defined by GSMA in [9].

NOTE 3: The SLA requirements can be translated to network service profile which can be used to decides on the constituent NSSIs and the topology of the NSI.

NOTE 4: The ServiceProfile can be translated to corresponding requirements for dedicated domains/NSSI.

**REQ-PRO\_NSI-FUN-3** The network slice provisioning service provider shall have the capability allowing its authorized consumer to request the deallocation of a network slice instance.

**REQ-PRO\_NSI–FUN-4** The network slice provisioning service provider shall have the capability allowing its authorized consumer to request activation of a network slice instance.

**REQ-PRO\_NSI–FUN-5** The network slice provisioning service provider shall have the capability allowing its authorized consumer to request deactivation of a network slice instance.

**REQ-PRO\_NSI-FUN-6** The network slice provisioning service provider shall have the capability allowing its authorized consumer to request the modification of a network slice instance.

**REQ-PRO\_NSI-FUN-7** The network slice provisioning service provider shall have the capability allowing its consumer to obtain the network slice management data.

**REQ-PRO\_NSI-FUN-8** The network slice provisioning service provider shall have the capability allowing its authorized consumer to obtain the feasibility of provisioning the requested network slice instance  at a particular point of time.

**REQ-PRO\_NSI-FUN-9** The network slice management service provider shall have the capability allowing its authorized consumer to request the capacity planning of a network slice instance.

**REQ-PRO\_NSI-FUN-x** The network slice management service provider shall have the capability allowing its authorized consumer to modify the network slice related requirements.

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| **End of Change** |