**3GPP TSG-SA5 Meeting #142e *S5-222059rev3***

**April 04 – 12, 2022, e-Meeting** *s5-2abcde*

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| *CR-Form-v11.4* |
| **CHANGE REQUEST** |
|  |
|  | **28.538** | **CR** | **xxxx** | **rev** | **-** | **Current version:** | **17.0.0** |  |
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| *For* [***HELP***](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 | **X** |

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| ***Title:***  | Add modification procedures |
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| ***Source to WG:*** | AsiaInfo |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | eECM |  | ***Date:*** | 2022-04-04 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-18 |
|  | *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:*** | Add modification procedures of EAS, ECS, and EES that is missing in clause 7.1 of TS 28.538. |
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| ***Summary of change:*** | Add modification procedures  |
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| ***Consequences if not approved:*** | Clause 7.1 is missing. |
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| ***Clauses affected:*** | 7.1.2.x (new)7.1.3.x (new)7.1.4.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:*** |  |

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| **1st Change** |

# 7 Procedural Flows

*Editors Note: This section will contain the procedures for different edge computing management capabilities e.g provisioning/LCM, performance assurance etc.*

## 7.1 Lifecycle management

### 7.1.1 Description

The clause contains procedures associated with lifecycle management.

### 7.1.2 EAS lifecycle management

7.1.2.X EAS VNF modification

Figure 7.1.2.x -1 depicts a procedure that describes how an ASP can consume provisioning MnS to modify the EAS. It is assumed that both ASP and ECSP consumers have subscribed to the producer of provisioning MnS to receive notifications.



Figure 7.1.2.X-1: EAS modification procedure

1. ASP consumes the provisioning MnS with modifyMOIAttributes operation (see clause 11.1.1.3. in TS 28.532 [5]) for EASFunction MOI to request ECSP management system provisioning MnS producer to modify the EAS VNF instance.

2. ECSP management system provisioning MnS producer sends a response to the consumer indicating that the modification operation is in progress.

3. If EAS instance to be modification contains virtualized part, checks whether corresponding VNF instance needs to be modified to satisfy the modification related requirements.

4. If corresponding VNF instance needs to be modified, ECSP provisioning MnS producer invokes theUpdateNsRequest operation (see clause 7.3.5 in ETSI GS NFV-IFA 013 [6]) to request NFVO via the Os-Ma-nfvo interface to modify the virtualized resource of the EAS VNF instance.

5. NFVO sends the NS Lifecycle Change notification to ECSP provisioning MnS producer indicating the result of modification procedure (see clause 7.3.12 of ETSI GS NFV-IFA 013 [6]).

6. ECSP provisioning MnS producer modifies the MOI for EASFunction IOC.

7. ECSP management system provisioning MnS producer response the consumer about the modification of the EAS.

### 7.1.3 ECS lifecycle management

7.1.3.X ECS modification

Figure 7.1.3.X-1 shows that the PLMN operator or ECSP as the consumer requests the ECS modification via the provisioning MnS.



Figure 7.1.3.X-1: ECS modification procedure

1. PLMN operator or ECSP consumes the provisioning MnS with modifyMOIAttributes operation (see clause 11.1.1.3. in TS 28.532 [5]) for ECSFunction MOI to request ECSP management system provisioning MnS producer to modify the ECS VNF instance.

2. ECSP management system provisioning MnS producer sends a response to the consumer indicating that the modification operation is in progress.

3. If ECS instance to be modification contains virtualized part, checks whether corresponding VNF instance needs to be modified to satisfy the modification related requirements.

4. If corresponding VNF instance needs to be modified, ECSP management system provisioning MnS producer invokes the updateNsRequest operation (see clause 7.3.5 in ETSI GS NFV-IFA 013 [6]) to request NFVO via the Os-Ma-nfvo interface to modify the virtualized resource of ECS VNF instance.

5. NFVO sends the NS Lifecycle Change notification to ECSP provisioning MnS producer indicating the result of modification procedure (see clause 7.3.12 of ETSI GS NFV-IFA 013 [6]).

6. ECSP management system provisioning MnS producer modifies the MOI for ECSFunction IOC.

7. ECSP management system provisioning MnS producer response to consumer about the modification of the ECS instance.

### 7.1.4 EES lifecycle management

7.1.4.X EES modification

Figure 7.1.4.X-1 shows that the PLMN operator or ECSP as the consumer requests the EES modification via the provisioning MnS.



Figure 7.1.4.X-1: EES modification procedure

1. PLMN operator or ECSP consumes the provisioning MnS with modifyMOIAttributes operation (see clause 11.1.1.3. in TS 28.532 [5]) for EESFunction MOI to request ECSP management system provisioning MnS producer to modify the EES VNF instance.

2. ECSP management system provisioning MnS producer sends a response to the consumer indicating that the modification operation is in progress.

3. If EES instance to be modification contains virtualized part, checks whether corresponding VNF instance needs to be modified to satisfy the modification related requirements.

4. If corresponding VNF instance needs to be modified, ECSP management system provisioning MnS producer invokes the updateNsRequest operation (see clause 7.3.5 in ETSI GS NFV-IFA 013 [6]) to request NFVO via the Os-Ma-nfvo interface to modify the virtualized resource of EES VNF instance.

5. NFVO sends the NS Lifecycle Change notification to ECSP provisioning MnS producer indicating the result of modification procedure (see clause 7.3.12 of ETSI GS NFV-IFA 013 [6]).

6. ECSP management system provisioning MnS producer modifies the MOI for EESFunction IOC.

7. ECSP management system provisioning MnS producer response to consumer about the modification of the EES instance.

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| **End of changes** |