**3GPP TSG- Meeting # *2d1***

**e-meeting, 4 - 12 April 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
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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 | **X** |

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| ***Title:***  | Rel-18 DraftCR 28.538 for eECM |
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| ***Source to WG:*** | Samsung |
| ***Source to TSG:*** | SA5 |
|  |  |
| ***Work item code:*** | eECM |  | ***Date:*** | 4 |
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| ***Category:*** |  |  | ***Release:*** |  |
|  | *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:*** | Stage 2 and 3 for eECM need to be added. |
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| ***Summary of change:*** | Stage 2 and 3 for eECM are added. |
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| ***Consequences if not approved:*** | The WI eECM cannot progress. |
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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:*** | Considered inputs:* S5-222607 R18 TS 28.538 add modification procedures.docx
* S5-222608 R18 TS 28.538 add query procedures.docx
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| ***This CR's revision history:*** |  |

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| **First modification** |

# 7 Procedural Flows

## 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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| **Next modification** |

7 Procedural Flows

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. Y EAS VNF query

Figure 7.1.2.Y-1 depicts a procedure that describes how an ASP can consume provisioning MnS query 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.Y-1: EAS query procedure

1. ECSP provisioning MnS Producer receives a query request (this will use getMOIAttributes operation defined in 3GPP TS 28.532[5]) with objectInstance of the existing EASFunction MOI, scope, and list of attributes of EASFunction IOC. The list of attributes identifies the attributes to be returned by this operation.

2. Based on the request, ECSP provisioning MnS producer queries the concrete EASFunction MOI

3. MnS Producer sends a response to the MnS consumer with objectClass, objectInstance, status (e.g. succeed or failed), and list of [Attribute, Value] related to EAS instance as defined in clause 6.4 (e.g. eASAddress).

7.1.3 ECS lifecycle management

7.1.3.Y ECS query

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



Figure 7.1.3.Y-1: ECS query procedure

1. ECSP provisioning MnS Producer receives a query request (this will use getMOIAttributes operation defined in 3GPP TS 28.532[5]) with objectInstance of the existing ECSFunction MOI, scope, and list of attributes of ECSFunction IOC. The list of attributes identifies the attributes to be returned by this operation.

2. Based on the request, ECSP provisioning MnS producer queries the concrete ECSFunction MOI

3. MnS Producer sends a response to the MnS consumer with objectClass, objectInstance, status (e.g. succeed or failed), and list of [Attribute, Value] related to ECS instance which is defined in clause 6.4(e.g. providerIdentifier).

### 7.1.4 ECS lifecycle management

7.1.4.Y EES query

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



Figure 7.1.4.Y-1: EES query procedure

1. ECSP provisioning MnS Producer receives a query request (this will use getMOIAttributes operation defined in 3GPP TS 28.532[5]) with objectInstance of the existing EESFunction MOI, scope, and list of attributes of EESFunction IOC. The list of attributes identifies the attributes to be returned by this operation.

2. Based on the request, ECSP provisioning MnS producer queries the concrete EESFunction MOI

3. MnS Producer sends a response to the MnS consumer with objectClass, objectInstance, status (e.g. succeed or failed), and list of [Attribute, Value] related to EES instance which is defined in clause 6.4(e.g. eESservingLocation).

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| **Next modification** |

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