**3GPP TSG SA WG5 Meeting #139e S5-215146**

**Online, , 11 Oct 2021- 20 Oct 2021**

**Source: Samsung, Huawei**

**Title: pCR 28.538 ECS Lifecycle Management usecase and requirements**

**Document for: Approval**

**Agenda Item: 6.X.X**

# 1 Decision/action requested

***The group is asked to discuss and approve the proposals.***

# 2 References

None

# 3 Rationale

The lifecycle management of ECS is an integral part of edge computing. This contribution provides the use case and requirements for the same.

# 4 Detailed proposal

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| **First modification** |

### 5.1.X ECS Deployment

The goal is to enable the instantiation of one or more ECS. To support deployed EDN, operator will deploy ECS serving one or multiple EES. A consumer request for ECS(s) instantiation providing ECS deployment requirements. The provisioning MnS producer instantiate the ECS VNF and establish the required connection with 5GC network functions. The notifications will be sent to indicate that the ECS has been instantiated successfully.

### 5.1.X ECS Termination

The goal is to enable the termination of one or more ECS. A consumer consumes the provisioning service to terminate the ECS with the ECS identifier. The provisioning MnS producer terminates the ECS VNF based on the ECS identifier, and disconnects the ECS from the 5GC network functions. The notification will be sent to indicate that the ECS has been terminated successfully.

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| **End of First modification** |

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| **Second modification** |

### 5.1.3 Requirements

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| **Requirement label** | **Description** | **Related use case(s)** |
| **REQ-EAS-INST-FUN-1** | Generic provisioning MnS producer should have a capability allowing an authorized consumer to request the deployment of EAS based on the given deployment requirements. | EAS Deployment |
| **REQ-EAS-INST-FUN-2** | Generic Provisioning MnS Producershould have the capability to deploy EAS at a suitable EDN which can support the EAS requirements e.g serving location, required latency, affinity/anti-affinity with other EAS, service continuity. | EAS Deployment |
| **REQ-EAS-INST-FUN-3** | Generic provisioning MnS producer should have a capability to inform the authorized consumer about the progress of instantiation as the response to the deployment request. | EAS Deployment |
| **REQ-EAS-INST-FUN-4** | Generic provisioning MnS producer should have a capability to notify the authorized consumer the result (e.g., success, failure, or partially failure) of instantiation operation. | EAS Deployment |
| **REQ-EAS-TERM-FUN-1** | Generic provisioning MnS producer should have a capability allowing an authorized consumer to request the termination of the EAS VNF instance. | EAS Termination |
| **REQ-EAS-TERM-FUN-2** | Generic provisioning MnS producer should have a capability to inform the authorized consumer about the progress of termination as the response to the termination request. | EAS Termination |
| **REQ-EAS-TERM-FUN-3** | Generic provisioning MnS producer should have a capability to notify the authorized consumer the result (e.g., success, failure, partially failure) of termination operation. | EAS Termination |
| **REQ-ECS-INST-FUN-x** | Generic provisioning MnS producer should have the capability to instantiate the ECS, as per request from authorized consumers. | ECS Deployment |
| **REQ-ECS-INST-FUN-x** | Generic provisioning MnS producer should have the capability to send the notification indicating the status of ECS Instantiation. | ECS Deployment |
| **REQ-ECS-INST-FUN-x** | Generic provisioning MnS producer should have the capability to relate instantiated ECS with one or multiple served EES(s). | ECS Deployment |
| **REQ-ECS-TERM-FUN-x** | Generic provisioning MnS producer should have the capability to terminate the ECS with the ECS identifier, as per request from authorized consumers. | ECS Termination |
| **REQ-ECS-TERM-FUN-x** | Generic provisioning MnS producer should have the capability to send the notification indicating the status of ECS termination. | ECS Termination |
| **REQ-ECS-TERM-FUN-x** | Generic provisioning MnS producer should have a capability to inform the authorized consumer about the progress of ECS instantiation as the response to the deployment request. | ECS Termination |
| **REQ-ECS-TERM-FUN-x** | Generic provisioning MnS producer should have a capability to inform the authorized consumer about the progress of ECS termination as the response to the termination request. | ECS Termination |

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| **End of Second modification** |