**3GPP TSG-CT WG3 Meeting #134 *C3-24xxxx***

**Changsha, China, 15 - 19 April, 2024** *(revision of C3-242060)*

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **119** | **rev** | **7** | **Current version:** |  |  |
|  | | | | | | | | |
| *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 |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | ECS Registration and Deregistration | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Incorporated, Samsung, Ericsson, Convida, NTT Docomo, InterDigital | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | EDGEAPP\_Ph2 | | | | |  | ***Date:*** | | | 2024-04-08 |
|  |  | | | |  | |  | | |  |
| ***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 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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | As part of federation and roaming feature, for an ECS to provide its information to an ECS-ER, TS 23.558 specifies procedures for an ECS to register or deregister from an ECS-ER. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | In this relaese of the specification, it is assumed that the ECSPs designate an ECS which plays the role of center of information for ECSP’s edge deployment and the information about ECSs is availble at this designated ECS. Further this designated ECS can be queried by partner ECSPs through direct interconnections based on mutual agreements. A note is added to explain this assumption.  Minor editorial (typos) in clause 9.1.2.3.3.1 was fixed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incomplete stage-3 work. Stage-2 requirements of ECS registraion and de-registration will not be supported. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.1, 6.1, 9.1.2.3.3.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 proposes new Open API file : Eecs\_ECSRegistration and fixes an editorial in clause 9.1.2.3.3.1 | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 2: In stage-2 there are no open Editor notes and the stage-2 aspects are stable. Hence, the stage-3 aspects of this API can specified.  Rev 3: updated the coversheet and added the Editor’s Note in the clause 6.5.  Rev 6: CR is transposed to the latest verison of the TS and added new cosigners.  Rev 7: The API for ECS registration is removed and a note is added explaining the assumptions for Rel-18. | | | | | | | | |

\* \* \* First Change \* \* \* \*

## 3.1 Terms

For the purposes of the present document, the terms given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

For the purposes of the present document, the following terms and its definitions given in 3GPP TS 23.558 [2] shall apply:

**Application Context**

**Application Context Relocation**

**Application Context Transfer**

**Application Server**

**Edge Computing Service Provider**

**Edge Data Network**

**EEC Context**

**Edge Hosting Environment**

**Instantiable EAS**

**Partner ECS**

**Partner ECSP**

\* \* \* Next Change \* \* \* \*

## 6.1 Introduction

The table 6.1-1 lists the Edge Configuration Server APIs below the service name. A service description clause for each API gives a general description of the related API.

Table 6.1-1: List of ECS Service APIs

|  |  |  |  |
| --- | --- | --- | --- |
| Service Name | Service Operations | Operation Semantics | Consumer(s) |
| Eecs\_EESRegistration | Request | Request/Response | e.g., EES |
| Update | Request/Response | e.g., EES |
| Deregister | Request/Response | e.g., EES |
| Eecs\_TargetEESDiscovery  (NOTE) | Request | Request/Response | e.g., EES, CES |
| Eecs\_EASInfoManagement | Get | Request/Response | EES |
| Store | Request/Response | EES |
| NOTE: In this release of the specification, this API is extended to enable to discover the target Enabler Server, which can be either the target EES or the target CES, not only the target EES, in order to support cloud enabler services. | | | |

Table 6.1-2 summarizes the corresponding Edge Configuration Server APIs defined in this specification.

Table 6.1-2: API Descriptions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Service Name** | **Clause** | **Description** | **OpenAPI Specification File** | **apiName** | **Annex** |
| Eecs\_EESRegistration | 9.1 | ECS EES registration service. | TS29558\_Eecs\_EESRegistration.yaml | eecs-eesregistration | A.11 |
| Eecs\_TargetEESDiscovery | 9.2 | ECS Service to discover the target EES information. | TS29558\_Eecs\_TargetEESDiscovery.yaml | eecs-targeteesdiscovery | A.12 |
| Eecs\_EASInfoManagement | 9.3 | ECS EAS Information Management Service. | TS29558\_Eecs\_EASInfoManagement.yaml | eecs-eim | A.16 |

NOTE: In this release of the specification, ECS registration service is not specified. It is assumed that ECSP’s edge deployment information is available at a designated ECS which can be queried using the Eecs\_ECSDiscovery service.

\* \* \* Next Change \* \* \* \*

###### 9.1.2.3.3.1 GET

This method retrieves the EES information registered at Edge Configuration Server. This method shall support the URI query parameters specified in table 9.1.2.3.3.1-1.

Table 9.1.2.3.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 9.1.2.3.3.1-2 and the response data structures and response codes specified in table 9.1.2.3.3.1-3.

Table 9.1.2.3.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 9.1.2.3.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| EESRegistration | M | 1 | 200 OK | The EES registration information at the Edge Configuration Server. |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection. The response shall include a Location header field containing an alternative URI of the resource located in an alternative ECS.  Redirection handling is described in clause 5.2.10 of TS 29.122 [6]. |
| n/a |  |  | 308 Permanent Redirect | Permanent redirection. The response shall include a Location header field containing an alternative URI of the resource located in an alternative ECS.  Redirection handling is described in clause 5.2.10 of TS 29.122 [6]. |
| NOTE: The manadatory HTTP error status code for the GET method listed in Table 5.2.6-1 of 3GPP TS 29.122 [6] also apply. | | | | |

Table 9.1.2.3.3.1-4: Headers supported by the 307 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative ECS. |

Table 9.1.2.3.3.1-5: Headers supported by the 308 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative ECS. |

\* \* \* End of Changes \* \* \* \*