**3GPP TSG-SA WG6 Meeting #37-e S6-200774**

**e-meeting, 14th – 26th May 2020 (revision of S6-xxxxxx)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.222** | **CR** | **0074** | **rev** | **-** | **Current version:** | **16.7.0** |  |
|  | | | | | | | | |
| *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:*** | Correction for CAPIF interconnection IEs | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Hisilicon | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eCAPIF | | | | |  | ***Date:*** | | | 2020-05-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | During interconnection API publish, it is currently specified in clause 8.25.2.1 that CCF information is Mandatory while service API information or service API category is optional.  As per procedure in clause 8.25.3.1, either service API information or the combination of service API category and CCF information is to be published from one CCF to another CCF. This aspect has to be corrected. | | | | | | | | |
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| ***Summary of change:*** | | Correct the Status for Service API information and service API category information | | | | | | | | |
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| ***Consequences if not approved:*** | | Implementation in stage 3 will be incorrect. | | | | | | | | |
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| ***Clauses affected:*** | | 8.25.2.1, 8.25.3.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **N** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **N** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **N** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

#### 8.25.2.1 Interconnection API publish request

Table 8.25.2.1-1 describes the information flow interconnection API publish request from CAPIF core function to CAPIF core function.

Table 8.25.2.1-1: Interconnection API publish request

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| --- | --- | --- |
| Information element | Status | Description |
| CCF information | M (see NOTE 1) | The information of the CAPIF core function which publishes APIs, may include identity, authentication and authorization information |
| Service API information | M  (see NOTE 1) | The service API information includes the service API name, service API type, communication type, description, interface details (e.g. IP address, port number, URI), protocols, version numbers, and data format. |
| Service API category | M  (see NOTE 1) | The category of the service APIs to be published, (e.g. V2X, IoT) |
| Shareable information | O  (see NOTE 2) | Indicates whether the service API or the service API category can be published to other CCFs. And if sharing, a list of CAPIF provider domain information where the service API or the service API catetory can be published is contained. |
| NOTE 1: Either combination of Service API information and Service API category or combination of Service API category and CCF information shall be present.  NOTE 2: If the shareable information is not present, the service API is not allowed to be shared. There is one and only one CAPIF provider domain information sharable via the CAPIF-6e interface. | | |

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

#### 8.25.3.1 Service API publish for CAPIF interconnection

This subclause describes the procedure for service API publish for CAPIF interoperation.

Pre-condition:

1. CCF-A and CCF-B connect to each other, and either belong to the single trust domain of the same CAPIF provider or trust domains of different CAPIF providers.

2. CCF-B is configured as the designated CAPIF core function in the trust domain of CAPIF provider A.

3. When CCF-A and CCF-B belong to trust domains of different CAPIF providers, the two CAPIF providers have business agreement for service API sharing.



Figure 8.25.3.1-1: Interconnection API publish

1. CCF-A gets the service APIs to be shared with CCF-B from the API publish function which is in the same CAPIF provider domain of CCF-A as described in subclause 8.3.3, or from another CCF as described in this procedure.

2. Based on the shareable information for the service API or the service API category information, the CCF-A determines to publish the service API or the service API category information to the CCF-B. The CCF-A sends the interconnection API publish request to CCF-B with the details of service APIs (including the category information) or the details which include only the category information of the service APIsalong with the identity information of CCF-A, shareable information and CAPIF provider domain information if allowed to share. The API topology hiding may be enabled.

3. CCF-B stores the service API information or service API category provided by the CCF-A.

4. CCF-B provides an interconnection API publish response to the CCF-A indicating success or failure result and triggers notifications to subscribed API invokers as described in subclause 8.8.4.