**3GPP TSG-CT WG1 Meeting #130-e C1-21xxxx**

**Electronic meeting, 20-28 May 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.486** | **CR** | **0091** | **rev** | **1** | **Current version:** | **16.3.0** |  |
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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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | PC5 Provisioning in multi-operator V2X scenarios procedure | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Hisilicon | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eV2XAPP | | | | |  | ***Date:*** | | | 2021-05-12 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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)* | |
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| ***Reason for change:*** | | The specification needs to define the stage 3 details of the PC5 Provisioning in multi-operator V2X scenarios procedure defined in 3GPP TS 23.286 clause 9.15. | | | | | | | | |
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| ***Summary of change:*** | | 1. Add the PC5 Provisioning in multi-operator V2X scenarios procedure. | | | | | | | | |
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| ***Consequences if not approved:*** | | The PC5 Provisioning in multi-operator V2X scenarios procedure is missing | | | | | | | | |
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| ***Clauses affected:*** | | 6.X(New) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | |  | | | | | | | | |

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

## 6.X PC5 Provisioning in multi-operator V2X scenarios procedure

#### 6.X.1 Client procedure

Upon receiving an HTTP POST request message containing:

a) a Content-Type header field set to "application/vnd.3gpp.vae-info+xml"; and

b) an application/vnd.3gpp.vae-info+xml MIME body with a <PC5-provisioning-status-info> element;

the VAE-C shall generate an HTTP 200(OK) response message according to procedures specified in IETF RFC 2616 [19]. In the HTTP 200(OK) response, the VAE-C:

a) shall set the Request-URI to the URI included in the received HTTP response for the V2X service discovery procedure (see clause 6.6);

b) shall include a Content-Type header field set to "application/vnd.3gpp.vae-info+xml";

c) shall include an application/vnd.3gpp.vae-info+xml MIME body with a <PC5-provisioning-status-info> element included in the <VAE-info> root element which:

1) shall include a <result> element set to the value "success" or "failure" indicating success or failure of the PC5 provisioning status request; and

2) shall include a <PC5-policy-status-report> corresponding to the PC5 policy status request; and

d) shall send the HTTP 200(OK) response towards the VAE-S according to IETF RFC 2616 [19].

Upon receiving an HTTP POST request message containing:

a) a Content-Type header field set to "application/vnd.3gpp.vae-info+xml"; and

b) an application/vnd.3gpp.vae-info+xml MIME body with a <multi-operator-PC5-provisioning-info> element;

the VAE-C shall generate an HTTP 200(OK) response message according to procedures specified in IETF RFC 2616 [19]. In the HTTP 200(OK) response, the VAE-C:

a) shall set the Request-URI to the URI included in the received HTTP response for the V2X service discovery procedure (see clause 6.6);

b) shall include a Content-Type header field set to "application/vnd.3gpp.vae-info+xml";

c) shall include an application/vnd.3gpp.vae-info+xml MIME body with a <multi-operator-PC5-provisioning-info> element included in the <VAE-info> root element which:

1) shall include a <result> element set to the value "success" or "failure" indicating success or failure of the multi-operator V2X provisioning request; and

d) shall send the HTTP 200(OK) response towards the VAE-S according to IETF RFC 2616 [19].

#### 6.X.2 Server procedure

Upon receiving a V2X PC5 provisioning requirement from the V2X application specific server, the VAE-S:

a) may generate an HTTP POST request according to procedures specified in IETF RFC 2616 [19]. In the HTTP POST request, the VAE-S:

1) shall set the Request-URI to the URI corresponding to the identity of the V2X UE;

2) shall include a Content-Type header field set to "application/vnd.3gpp.vae-info+xml";

3) shall include an application/vnd.3gpp.vae-info+xml MIME body with a <PC5-provisioning-status-info> element in the <VAE-info> root element which:

A) shall include a <VAE-server-id> element set to the identity of the VAE server which is requester of the PC5 parameters status;

B) shall include a <V2X-service-id> element set to the identity of the V2X service for which the VAE server's request corresponds to; and

C) may include a <PC5-provisioning-status-report-configuration> element set to the configuration of the VAE-client reporting related to the PC5 Policy/Parameters status, and optionally PC5 events like PC5 unavailability, PQI load/congestion info; and

4) shall send the HTTP POST request towards the VAE-C according to IETF RFC 2616 [19];

NOTE: if step a) is performed, the VAE-S shall wait until the response of step a) from the VAE-C and then perform step b).

b) shall determine the updated PC5 provisioning policies to be jointly used across the V2X-UEs within the multi-operator V2X service and shall generate an HTTP POST request according to procedures specified in IETF RFC 2616 [19]. In the HTTP POST request, the VAE-S:

1) shall set the Request-URI to the URI corresponding to the identity of the V2X UE;

2) shall include a Content-Type header field set to "application/vnd.3gpp.vae-info+xml";

3) shall include an application/vnd.3gpp.vae-info+xml MIME body with a <multi-operator-PC5-provisioning-info> element in the <VAE-info> root element which:

A) shall include a <VAE-server-id> element set to the identity of the VAE server which is requester of the Multi-operator V2X provisioning request;

B) shall include a <V2X-service-id> element set to the identity of the V2X service for which the VAE server's request corresponds to;

C) shall include a <PC5-provisioning-policies> element set to the common provisioning parameters to be used by the V2X-UEs within the V2X service; and

D) may include a <time-validity> element set to the time window for which the V2X provisioning applies; and

4) shall send the HTTP POST request towards the VAE-C according to IETF RFC 2616 [19].

\* \* \* End of Change \* \* \* \*