**3GPP TSG-CT WG1 Meeting #131-eC1-21xxxx**

**E-meeting, 19-27 August 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.486** | **CR** | **0115** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Switching modes of operations for V2V communications procedure | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Hisilicon | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eV2XAPP | | | | |  | ***Date:*** | | | 2021-08-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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 switching modes of operations for V2V communications procedure defined in 3GPP TS 23.286 clause 9.8. | | | | | | | | |
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| ***Summary of change:*** | | 1. Add the switching modes of operations for V2V communications procedure. | | | | | | | | |
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| ***Consequences if not approved:*** | | The switching modes of operations for V2V communications 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 Switching modes of operations for V2V communications 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 an <communication-status-info> element;

the VAE-C shall generate an HTTP 200(OK) response message according to procedures specified in IETF RFC 7231 [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 <communication-status-info> element included in the <VAE-info> root element which:

1) shall include a <V2X-UE-id> element set to the identity of the V2X UE;

2) shall include a <V2V-communication-mode> element indicating which V2V communication mode supported by the V2X UE;

3) may include a <V2X-service-id> element corresponding to the communication status;

4) may include a <cell-info> element indicating the cell information of which the V2X UE is located; and

5) may include a <communication-link-status-info> element indicating the communication status of the V2X UE; and

d) shall send the HTTP 200(OK) response towards the VAE-S according to IETF RFC 7231 [19].

#### 6.X.2 Server procedure

In oder to provide the assistance for V2V communication mode switching, the VAE-S may have acquired the application requirement from the V2X application specific server and may generate an HTTP POST request according to procedures specified in IETF RFC 7231 [19]. In the HTTP POST request, the VAE-S:

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

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 <communication-status-info> element in the <VAE-info> root element which:

1) shall include a <V2X-UE-id> element set to the identity of the V2X UE; and

2) may include a <V2X-service-id> element set to the identity of the V2X service being requested; and

d) shall send the HTTP POST request towards the VAE-C according to IETF RFC 7231 [19].

Based on the reception of the network monitoring information from the 3GPP network or the communication status information from the <communication-link-status-info> element of an HTTP 200(OK) response, the VAE-S may generate an HTTP POST request according to procedures specified in IETF RFC 7231 [19]. In the HTTP POST request, the VAE-S:

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

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 <V2V-communication-assistance-info> element in the <VAE-info> root element which:

1) shall include a <V2X-UE-id> element set to the identity of the V2X UE;

2) may include a <V2X-service-id> element set to the identity of the V2X service corresponding to the recommendation information; and

3) shall include a <V2V-communication-assistance> element indicating the assistance information for V2V communication mode switching to the V2X UE; and

d) shall send the HTTP POST request towards the VAE-C according to IETF RFC 7231 [19].

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