**3GPP TSG-CT WG1 Meeting #129-eC1-212346**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **24.486** | **CR** | **0072** | **rev** | **-** | **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:***  | Switching modes of operations for V2V communications procedure |
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| ***Source to WG:*** | Huawei, Hisilicon |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | eV2XAPP |  | ***Date:*** | 2021-04-08 |
|  |  |  |  |  |
| ***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 canbe 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 9.8.3. |
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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) |
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|  | **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 ...  |
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| ***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 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"; and

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 2616 [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 2616 [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 2616 [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 2616 [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 2616 [19].

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