**3GPP TSG-CT WG1 Meeting #129-eC1-212347**

**Electronic meeting, 19-23 April 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.486** | **CR** | **0073** | **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:***  | Structure for switching modes of operations for V2V communications procedure |
|  |  |
| ***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 structure for 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 structure for the switching modes of operations for V2V communications procedure. |
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| ***Consequences if not approved:*** | The structure for the switching modes of operations for V2V communications procedure is missing |
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| ***Clauses affected:*** | 8.3 |
|  |  |
|  | **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 \* \* \* \*

## 8.3 Structure

The VAE document shall conform to the XML schema described in clause 8.4.

The <VAE-info> element shall be the root element of the VAE document.

The <VAE-info> element shall include at least one of the followings:

a) a <registration-info> element;

b) a <de-registration-info> element;

c) a <location-tracking-info> element;

d) a <message-info> element;

e) a <service-discovery-info> element;

f) a <local-service-info> element;

g) an <V2X-USD-announcement-info> element;

h) a <set-PC5-parameters-info> element;

i) a <layer2-group-id-mapping> element;

j) an <id-list-notification> element;

k) a <network-monitoring-subscription-info> element;

l) a <network-monitoring-info-notification> element;

m) a <communication-status-info > element; or

n) a <V2V-communication-assistance-info> element;

The <service-discovery-info> element shall include:

a) an <V2X-UE-id> element; or

b) a <result> element and may include a <service-discovery-data> element.

The <service-discovery-data> element shall include one or more <V2X-service-map> elements. Each <V2X-service-map> element shall include following elements:

a) one or more <V2X-service-id> element(s); and

b) a <V2X-AS-address> element.

The <registration-info> element shall include at least one of the followings:

a) a <V2X-UE-id> element, a <reception-uri> element and one or more <V2X-service-ID> element(s); or

b) a <result> element.

The <service> element shall include a <V2X-service-id> or a <V2X-MSG-type> child element.

The <de-registration-info> element shall include the followings:

a) a <V2X-UE-id> element and one or more <V2X-service-id> element(s); or

b) a <result> element.

The <location-tracking-info> element shall include either:

a) the following elements:

- a <V2X-UE-id> element;

- a <geographical-identifier> element shall include a <geo-id> element; and

- an <operation> element; or

b) the following elements:

- a <result> element; and

- an <operation> element.

The <geographical-identifier> element shall include one or more <geo-id> elements.

The <message-info> element shall include at least one of the followings:

a) a <V2X-UE-id> element;

b) a <V2X-group-id> element;

c) a <payload> element;

d) a <V2X-service-id> element;

e) a <geo-id> element;

f) a <message-reception-ind> element;

g) a <message-reception-uri> element; or

h) a <result> element.

The <group> element shall include a <V2X-group-id> child element.

The <local-service-info> element shall include one of the following:

a) a <V2X-UE-id> element and a <geo-id> element; or

b) a <result> element and optionally a <local-service-info-content> element which shall include:

1) a <V2X-server-USD> element which shall include:

i) a <TMGI> element;

ii) a <mbms-service-areas> element;

iii) a <frequency> element; and

iv) a <V2X-mbms-sdp> element;

2) a <V2X-AS-address> element; and

3) a <V2X-server-USD> element which shall include:

i) a <TMGI> element;

ii) a <mbms-service-areas> element;

iii) a <frequency> element; and

iv) a <V2X-mbms-sdp> element.

The <V2X-USD-announcement-info> element shall include the followings:

a) a <V2X-UE-id> element; and

b) a <V2X-USD-configuration-data> element which shall include the followings:

1) a <TMGI> element;

2) a <mbms-service-areas> element;

3) a <frequency> element; and

4) a <V2X-mbms-sdp> element.

The <set-PC5-parameters-info> element shall include the followings:

a) a <V2X-UE-id> element;

b) a <PC5-parameters-configure-data> element which shall include:

1) an <expiration-time> element;

2) a <plmn-list> element which shall include one or more <plmn-id> elements;

3) an <authorized-when-not-served-by-E-UTRAN> element;

4) a <radio-parameters> element which shall include:

i) one or more <radio-parameters-content> elements;

ii) a <geographical-area> element which shall include:

A) a <polygon-area> element; or

B) an <ellipsoid-arc-area> element; and

iii) an <operator-managed> element; and

5) a <V2X-service-ids-list> element which shall include the following elements:

i) one or more <V2X-service-id> elements; or

ii) one or more <layer-2-id> elements; or

c) a <result> element.

The <layer2-group-id-mapping> element shall include the followings:

a) a <dynamic-group-info> element which shall include the following elements:

1) a <dynamic-group-id> element;

2) a <group-definition> element; and

3) a <group-leader-id> element; and

b) a <prose-layer2-group-id> element.

The <id-list-notification> element shall include the followings:

a) a <dynamic-group-id> element;

b) one or more <group-member-id> element(s), each of which shall include the followings:

1) a <V2X-UE-id> element; and

2) a <group-scope> element.

The <network-monitoring-subscription-info> element shall include either:

a) the following elements:

1) an <V2X-UE-id> element;

2) a <subscription-events> element which shall include one or more <event> elements; and

3) a <triggering-criteria> element; or

b) the following elements:

1) an <identity> element; and

2) a <result> element.

The <triggering-criteria> element shall include at least one of the following elements:

1) a <cell-change> element shall include one of the following sub-elements:

i) an <any-cell-change> element shall include a <trigger-id> element;

ii) an <enter-specific-cell> element shall include a <trigger-id> element; or

iii) an <exit-specific-cell> element include a <trigger-id> element;

2) a <tracking-area-change> element shall include one of the following sub-elements:

i) an <any-tracking-area-change> element shall include a <trigger-id> element;

ii) an <enter-specific-tracking-area> element shall include a <trigger-id> element; or

iii) an <exit-specific-trackin-area> element shall include a <trigger-id> element;

3) a <plmn-change> element shall include one of the following sub-elements:

i) an <any-plmn-change> element shall include a <trigger-id> element;

ii) an <enter-specific-plmn>element shall include a <trigger-id> element; or

iii) an <exit-specific-plmn> element shall include a <trigger-id> element;

4) an <mbms-sa-change> element shall include one of the following sub-elements:

i) an <any-mbms-sa-change> element shall include a <trigger-id> element;

ii) an <enter-specific-mbms-sa> element shall include a <trigger-id> element; or

iii) an <exit-specific-mbms-sa> element shall include a <trigger-id> element;

5) an <mbsfn-area-change> element shall include one of the following sub-elements:

i) an <any-mbsfn-area-change> element shall include a <trigger-id> element;

ii) an <enter-specific-mbsfn-area> element shall include a <trigger-id> element; or

iii) an <exit-specific-mbsfn-area> element shall include a <trigger-id> element;

6) a <periodic-report> element shall include a <trigger-id> element;

7) a <travelled-distance> element shall include a <trigger-id> element;

8) a <vertical-application-event> element shall include one of the following sub-elements:

i) an <initial-log-on> element shall include a <trigger-id> element;

ii) a <location-configuration-received> element shall include a <trigger-id> element; or

iii) an <any-other-event>, an optional element specifying that any other application signalling event than initial-log-on and location-configuration-received triggers a request for a location report. This element contains a mandatory <trigger-id> attribute that shall be set to a unique string;

9) a <geographical-area-change> element shall include one of the following sub-elements:

i) an <any-area-change> element shall include a <trigger-id> element;

ii) an <enter-specific-area> element shall include the following sub-element:

A) a <geographical-area> element shall include:

I) a <polygon-area> element shall include a <trigger-id> element; or

II) an <ellipsoid-arc-area> element shall include a <trigger-id> element;

iii) an <exit-specific-area-type> element shall include a <trigger-id> element;

The <network-monitoring-info-notification> element shall include the followings:

a) a <V2X-ue-id> element; and

b) a <network-monitoring-info> element, which shall include one or more <trigger-id> elements and may include:

1) an <uplink-quality-level> element;

2) a <congestion-info> element;

3) a <geographical-area> element which shall include at least one of the followings:

i) a <cell-area> element; or

ii) a <tracking-area> element;

4) a <time-validity> element; or

5) an <MBMS-level> element which may include:

i) an <MBMS-coverage-level> element; or

ii) an <MBMS-bearer-level-event> element.

The <communication-status-info > element shall include the followings:

a) a <V2X-UE-id> element;

b) a <V2V-communication-mode> element;

c) a <V2X-service-id> element;

d) a <cell-info> element; and

e) a <communication-link-status-info> element.

The <V2V-communication-assistance-info> element shall include the followings:

a) a <V2X-UE-id> element;

b) a <V2X-service-id> element. and

c) a <V2V-communication-assistance> element.

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