**3GPP TSG-CT3 Meeting #130C3-234xxx**

**Xiamen, China, 9th – 13th October 2023 was C3-234132**

**3GPP TSG-CT1 Meeting #144C1-237415**

**Xiamen, China, 9th – 13th October 2023**

 (was CP-231285)

**Source: Huawei, HiSilicon**

**Title: Revised WID on CT aspects of application layer support for V2X services; Phase 3**

**Document for: Agreement**

**Agenda Item: 18.1.2**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: CT aspects of application layer support for V2X services; Phase 3

Acronym: V2XAPP\_Ph3

Unique identifier: 980043

Potential target Release: Rel-18

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  | X |  | X |  |
| No | X |  | X |  |  |
| Don't know |  |  |  |  | X |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
|  | Feature |
| X | Building Block |
|  | Work Task |
|  | Study Item |

## 2.2 Parent Work Item

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| V2XAPP\_Ph3 | SA6 | 970039 | Application layer support for V2X services; Phase 3 |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 930014 | Study on Enhancements to application layer support for V2X services; Phase 2 | SA6 study item |

# 3 Justification

Application layer support for V2X services; Phase 3 (V2XAPP\_Ph3) is a Rel-18 SA WG6 work which impacts the CT WGs (see WID in SP-220916). The work is to provide enhancements to support advanced V2X services.

The SA WG6 are enhancing the VAE layer and the SEAL layer as specified in TS 23.286 and TS 23.434 under the V2XAPP\_Ph3 work item.

Additionally, SA WG1 provides the necessary service requirements in TS 22.185 and TS 22.186. The EPS architecture for V2X communications is specified in TS 23.285, and the 5GS architecture to support V2X services is specified in TS 23.287.

The related SA WG6 study item on enhancements to application layer support for V2X services; phase 2 (FS\_eV2XAPP\_Ph2) is captured in TR 23.700-64.

# 4 Objective

The objective of this building block is to specify the CT aspects of application layer support for V2X services; Phase 3 in order to enhance the CT WGs specifications based on the stage-2 requirements developed by the SA WG6. The stage-3 work shall be started only after the applicable normative stage-2 requirements are available.

The following areas of work will include the following (non-exhaustive, additional areas can be identified based on the progress in the normative stage-2 work in SA WG6).

For CT1, the expected work includes:

a) enhancements to the V2X application enabler (VAE) layer protocol for V5-AE and V1-AE;

- support for VRU zone configurations;

- support for DRX configurations for V2P communications;

- enhanced network monitoring to support advanced V2X services;

- deployment of V2X application layer with edge enabler layer.

For CT3, the expected work includes:

a) enhancement of APIs provided by the V2X application enabler (VAE) server for Vs and VAE-E; and

b) possible enhancements to support the VAE server (acting as the EAS) to interact with the EES over EDGE-3.

# 5 Expected Output and Time scale

|  |
| --- |
| **Impacted existing TS/TR** *{One line per specification. Create/delete lines as needed}* |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| 24.486 | Enhancement to VAE layer protocol | TSG CT #103 (March 2024) | CT1 |
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|  |  |  |  |
| 29.486 | Update to the VAE layer service | TSG CT #103 (March 2024) | CT3 |
| 29.558 | Possible enhancements to support the VAE server (acting as the EAS) to interact with the EES over the EDGE-3 interface | TSG CT #103 (March 2024) | CT3 |

# 6 Work item Rapporteur(s)

Herrero Veron, Christian (Huawei)

Christian.Herrero at huawei.com

# 7 Work item leadership

CT1

# 8 Aspects that involve other WGs

SA6 for the architectural aspects.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Huawei |
| HiSilicon |
| CATT |
| China Mobile |
| Lenovo |