**3GPP TSG-SA WG6 Meeting #42-e S6-210565**

**e-meeting, 1st – 9th March 2021 (revision of S6-21xxxx)**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **23.286** | **CR** | **0044** | **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:***  | V2X UE identity |
|  |  |
| ***Source to WG:*** | CATT |
| ***Source to TSG:*** | S6 |
|  |  |
| ***Work item code:*** | eV2XAPP |  | ***Date:*** | 2021-02-24 |
|  |  |  |  |  |
| ***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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | When the V2X applications use capabilities from 3GPP system with respect to V2X UEs, the VAE layer needs to support service invocation towards the 3GPP network by UE identities that can address the 3GPP subscriptions. In this case GPSI can be used to identify a V2X UE which can be used in 3GPP system as well as V2X application layer.According to clause 8.2 of TS 23.286, to uniquely represent the V2X UE within a V2X service, the V2X UE ID can be the GPSI type of External Identifier (with the form of username@realm) as specified in TS 23.003. |
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| ***Summary of change:*** | Add GPSI as one of the forms of V2X UE ID. |
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| ***Consequences if not approved:*** | Invocation of 3GPP system capabilities may not be fully supported. |
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| ***Clauses affected:*** | 2, 3.2, 8.2 |
|  |  |
|  | **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 \* \* \* \*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 22.185: "Service requirements for V2X services; Stage 1".

[3] 3GPP TS 22.186: "Enhancement of 3GPP support for V2X scenarios; Stage 1".

[4] 3GPP TS 23.280: "Common functional architecture to support mission critical services".

[5] 3GPP TS 23.285: "Architecture enhancements for V2X services".

[6] 3GPP TS 23.434: "Service enabler architecture layer for verticals; Functional architecture and information flows".

[7] 3GPP TS 23.468: "Group Communication System Enablers for LTE (GCSE\_LTE); Stage 2".

[8] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".

[9] 3GPP TR 23.795: "Study on application layer support for V2X services".

[10] 3GPP TS 26.346: "Multimedia Broadcast/Multicast Service (MBMS); Protocols and codecs".

[11] 3GPP TS 26.348: "Northbound Application Programming Interface (API) for Multimedia Broadcast/Multicast Service (MBMS) at the xMB reference point".

[12] 3GPP TS 29.214: "Policy and Charging Control over Rx reference point".

[13] 3GPP TS 29.468: "Group Communication System Enablers for LTE (GCSE\_LTE); MB2 Reference Point; Stage 3".

[14] 3GPP TS 36.300: " Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2".

[15] ETSI EN 302 637-3 (V1.3.1): "Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Part 3: Specifications of Decentralized Environmental Notification Basic Service".

[16] ETSI TS 102 894-2 (V1.2.1): "Intelligent Transport Systems (ITS); Users and applications requirements; Part 2: Applications and facilities layer common data dictionaryMultimedia Broadcast/Multicast Service (MBMS); Protocols and codecs".

[17] ETSI TS 102 965 (V1.4.1): "Intelligent Transport Systems (ITS); Application Object Identifier (ITS-AID); Registration".

[18] ISO TS 17419: "Intelligent Transport Systems - Cooperative systems - Classification and management of ITS applications in a global context".

[19] 3GPP TS 23.287: " Architecture enhancements for 5G System (5GS) to support Vehicle-to-Everything (V2X) services".

[20] 3GPP TS 23.501: "System architecture for the 5G System (5GS)".

[21] 3GPP TS 23.222: "Functional architecture and information flows to support Common API Framework for 3GPP Northbound APIs; Stage 2".

[22] 3GPP TS 29.116: "Representational state transfer over xMB reference point between Content Provider and BM-SC".

[xx] 3GPP TS 23.003: "Numbering, Addressing and Identification".

\* \* \* Next Change \* \* \* \*

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply.
An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

5GS 5G System

AS Application Server

AID Application Object Identifier

CAPIF Common API Framework for northbound APIs

E-UTRAN Evolved Universal Terrestrial Radio Access Network

EPS Evolved Packet System

ETSI European Telecommunications Standards Institute

GPSI Generic Public Subscription Identifier

LTE Long-Term Evolution

MBMS Multimedia Broadcast Multicast Service

PSID Provider Service Identifier

SAE Society of Automotive Engineers

SCEF Service Capability Exposure Function

SCS Services Capability Server

UE User Equipment

USD User Service Description

V2I Vehicle-to-Infrastructure

V2N Vehicle-to-Network

V2P Vehicle-to-Pedestrian

V2V Vehicle-to-Vehicle

V2X Vehicle-to-Everything

VAE V2X Application Enabler

\* \* \* Next Change \* \* \* \*

## 8.2 V2X UE identity (V2X UE ID)

The V2X UE ID can be an instance of the VAL UE ID as specified in 3GPP TS 23.434 [6]. The V2X UE ID is a unique identifier within the V2X service that represents the V2X UE. The V2X UE ID can be a type of GPSI (i.e. MSISDN or External Identifier) as defined in 3GPP TS 23.003 [xx]. The V2X UE ID is mapped to an application specific UE identity (e.g. StationID as specified in ETSI TS 102 894-2 [16]). Due to privacy considerations, the V2X UE ID may be changed. The V2X UE ID is used to address the V2X UE in order to send V2X messages.

Editor’s Note: The use of application specific UE identity to support invocation of 3GPP procedures is FFS.