**3GPP TSG-CT WG1 Meeting #126-eC1-20xxxx**

**Electronic meeting, 15-23 October 2020 was C1-205825**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.587** | **CR** | **0117** | **rev** | **1** | **Current version:** | **16.2.1** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | T5010 confliction | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | vivo, Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eV2XARC | | | | |  | ***Date:*** | | | 2020-10-08 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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) Rel-17 (Release 17)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Now there is a confliction for T5010’s usage, the T5010 is used with two different meanings:   * one is for UE-requested V2X policy provisioning procedure; * another is for link ID update procedure.   To avoid this confliction, it is proposed to define a new timer for UE-requested V2X policy provisioning procedure. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Re-define a new timer for UE-requested V2X policy provisioning procedure. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The usage of T5010 is conflicting. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.3.2.2, 5.3.2.3, 5.3.2.4, 5.3.2.6, 10.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

#### 5.3.2.2 UE-requested V2X policy provisioning procedure initiation

In order to initiate the UE-requested V2X policy provisioning procedure, the UE shall create a UE POLICY PROVISIONING REQUEST message (see example in figure 5.3.2.2.1). The UE:

a) shall allocate a PTI value currently not used and set the PTI IE to the allocated PTI value;

b) shall include the Requested UE policies IE indicating whether the UE policies for V2X communication over PC5, the UE policies for V2X communication over Uu or both are requested;

c) shall transport the UE POLICY PROVISIONING REQUEST message using the NAS transport procedure as specified in 3GPP TS 24.501 [6] clause 5.4.5; and

d) shall start timer T5040.



Figure 5.3.2.2.1: UE-requested V2X policy provisioning procedure

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

#### 5.3.2.3 UE-requested V2X policy provisioning procedure accepted by the network

Upon receipt of and accepting the UE POLICY PROVISIONING REQUEST message, the PCF shall create a MANAGE UE POLICY COMMAND message and shall behave as described in clause D.2.1 of 3GPP TS 24.501 [6].

Upon receipt of the MANAGE UE POLICY COMMAND message with the same PTI as included in the UE POLICY PROVISIONING REQUEST message, the UE shall stop timer T5040 and handles the MANAGE UE POLICY COMMAND message as specified in clause D.2.1 of 3GPP TS 24.501 [6].

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

#### 5.3.2.4 UE-requested V2X policy provisioning procedure not accepted by the network

Upon receipt and rejecting of the UE POLICY PROVISIONING REQUEST message, the PCF shall create a UE POLICY PROVISIONING REJECT message.

The PCF shall set the UPDS cause IE of the UE POLICY PROVISIONING REJECT message to indicate reason for rejecting the UE-requested V2X policy provisioning procedure.

The UPDS cause IE typically indicates one of the following UPDS cause values:

#31 request rejected, unspecified;

#32 service option not supported;

#34 service option temporarily out of order;

#35 PTI already in use; or

#95 – 111 protocol errors.

The PCF shall transport the UE POLICY PROVISIONING REJECT message to the UE via the AMF using the procedure specified in 3GPP TS 23.502 [4].

Upon receipt of the UE POLICY PROVISIONING REJECT message, the UE shall stop timer T5040.

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

#### 5.3.2.6 Abnormal cases on the UE

The following abnormal cases can be identified:

a) T5040 expired.

The UE shall, on the first expiry of the timer T5040, retransmit the UE POLICY PROVISIONING REQUEST message and shall reset and start timer T5040. This retransmission is repeated four times, i.e. on the fifth expiry of timer T5040, the UE shall abort the procedure and release the allocated PTI.

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

## 10.2 Timers of provisioning of parameters for V2X configuration procedures

Timers of provisioning of parameters for V2X configuration are shown in table 10.2.1.

Table 10.2.1: Timers of provisioning of parameters for V2X configuration – UE side

| TIMER NUM. | TIMER VALUE | CAUSE OF START | NORMAL STOP | ON  THE 1st, 2nd, 3rd, 4th EXPIRY |
| --- | --- | --- | --- | --- |
| T5040 | 16s | Transmission of UE POLICY PROVISIONING REQUEST message | MANAGE UE POLICY COMMAND or UE POLICY PROVISIONING REJECT message received | Retransmission of UE POLICY PROVISIONING REQUEST message |

\* \* \* Forth Change \* \* \* \*