**3GPP TSG-CT WG1 Meeting #135-eC1-22xxxx**

**E-Meeting, 6th – 12th April 2022 *was* C1-222839**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.193** | **CR** | **0092** | **rev** | **1** | **Current version:** | **17.4.1** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Modify Additional request IE | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ATSSS\_Ph2 | | | | |  | ***Date:*** | | | 2022-04-08 |
|  |  | | | |  | |  | | |  |
| ***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 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Based on existing definition, the purpose of the *additional request* information element is to indicate whether to restart counting for another PLR measurement. However, this IE is also included by the peer entity in the response message to indicate whether restart counting for another PLR measurement is accepted or not.  Based on above, "additional request" is not a good IE naming since the IE is also for acknowledgement in a response message.  In addition, the bit "ACR" is used to indicate whether *restart counting* is required or not. It should be bit "RC" for "restart counting".  Therefore, it is proposed to change the naming of "additional request IE" to "additional indication IE", and change bit "ACR" to bit "RC". | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Change the naming of "additional request IE" to "additional measurement indication IE".  Change bit "ACR" to bit "RC". | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The IE definition inappropriate. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.4.6.3.1, 5.4.6.3.2, 5.4.7.3.1, 5.4.7.3.2, 6.2.1.9.1, 6.2.1.10.1, 6.2.2.9 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

##### 5.4.6.3.1 UE-initiated PLR report procedure initiation

In order to initiate a UE-initiated PLR report procedure over an access of an MA PDU session, the UE shall

- allocate an EPTI value as specified in clause 5.4.2.2;

- create a PMFP PLR REPORT REQUEST message;

- set the EPTI IE of the PMFP PLR REPORT REQUEST message to the allocated EPTI value; and

- include the Additional measurement indication IE with "RC" bit set if the UE intends to request the UPF to restart counting the UL packets.

Upon sending the PMFP PLR REPORT REQUEST message the UE shall:

- start a timer T104;

- stop couting the UL packets; and

- restart counting the transmitted UL packest if the Additional measurement indication IE with "RC" bit set is included in the PMFP PLR REPORT REQUEST message.

An example of the UE-initiated PLR report procedure is shown in figure 5.4.6.3.1-1.



Figure 5.4.6.3.1-1: UE-initiated PLR report procedure

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

##### 5.4.6.3.2 UE-initiated PLR report procedure completion

Upon receiving the PMFP PLR REPORT REQUEST message, the UPF shall:

- create a PMFP PLR REPORT RESPONSE message;

- set the EPTI IE of the PMFP PLR REPORT RESPONSE message to the EPTI value of the received PMFP PLR REPORT REQUEST message;

- stop counting the received UL packets and set the Counting result IE to the number of counted received UL packets since the reception of the last PMFP PLR COUNT REQUEST message over the QoS flow; and

- include the Additional measurement indication IE with "RC" bit set if accepting the request from the UE to restart counting the UL packets.

The UPF shall send the PMFP PLR REPORT RESPONSE message over the QoS flow on the same access which the PMFP PLR REPORT REQUEST message was received. Upon sending the PMFP PLR REPORT RESPONSE message, the UPF restarts counting the received UL packets over the QoS flow on the same access which the PMFP PLR REPORT REQUEST message is received if accepting the request from the UE to restart counting the UL packets.

Upon receiving the PMFP PLR REPORT RESPONSE message with the same EPTI as the allocated EPTI value of the sent PMFP PLR REPORT REQUEST message, the UE shall:

- stop the timer T104; and

- calculate the UL PLR over the QoS flow based on the number of the UL packets counted locally and the number indicated in Counting result IE in the received PMFP PLR REPORT RESPONSE message.

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

##### 5.4.7.3.1 Network-initiated PLR report procedure initiation

In order to initiate a network-initiated PLR report procedure over an access of an MA PDU session, the UPF shall

- allocate an EPTI value as specified in clause 5.4.2.2;

- create a PMFP PLR REPORT REQUEST message;

- set the EPTI IE of the PMFP PLR REPORT REQUEST message to the allocated EPTI value; and

- include the Additional measurement indication IE with "RC" bit set if the UPF intends to request the UE to restart counting the DL packets.

Upon sending the PMFP PLR REPORT REQUEST message the UPF shall:

- start a timer T204;

- stop couting the DL packets; and

- restart counting the transmitted DL packets if the Additional measurement indication IE with "RC" bit set is included in the PMFP PLR REPORT REQUEST message.

An example of the network-initiated PLR report procedure is shown in figure 5.4.7.3.1-1.



Figure 5.4.7.3.1-1: Network-initiated PLR report procedure

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

##### 5.4.7.3.2 Network-initiated PLR report procedure completion

Upon receiving the PMFP PLR REPORT REQUEST message, the UE shall:

- create a PMFP PLR REPORT RESPONSE message;

- set the EPTI IE of the PMFP PLR REPORT RESPONSE message to the EPTI value of the received PMFP PLR REPORT REQUEST message;

- stop counting the received DL packets and set the Counting result IE to the number of counted received DL packets since the reception of the last PMFP PLR COUNT REQUEST message over the QoS flow; and

- include the Additional measurement indication IE with "RC" bit set if accepting the request from the UPF to restart counting the DL packets.

The UE shall send the PMFP PLR REPORT RESPONSE message over the QoS flow on the same access which the PMFP PLR REPORT REQUEST message was received. Upon sending the PMFP PLR REPORT RESPONSE message, the UE restarts counting the received DL packets over the QoS flow on the same access which the PMFP PLR REPORT REQUEST message is received if accepting the request from the UPF to restart counting the DL packets.

Upon receiving the PMFP PLR REPORT RESPONSE message with the same EPTI as the allocated EPTI value of the sent PMFP PLR REPORT REQUEST message, the UPF shall:

- stop the timer T204; and

- calculate the DL PLR over the QoS flow based on the number of the DL packets counted locally and the number indicated in Counting result IE in the received PMFP PLR REPORT RESPONSE message.

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

##### 6.2.1.9.1 Message definition

The PMFP PLR REPORT REQUEST message is sent by either UE or UPF to request the reprot of the counting result.

See table 6.2.1.9.1-1.

Message type: PMFP PLR REPORT REQUEST

Significance: dual

Direction: both

Table 6.2.1.9.1-1: PMFP PLR REPORT REQUEST message content

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | PMFP PLR report request message identity | Message type  6.2.2.1 | M | V | 1 |
|  | EPTI | Extended procedure transaction identity  6.2.2.2 | M | V | 2 |
|  | Additional measurement indication | Additional measurement indication  6.2.2.9 | O | TV | 1 |

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

##### 6.2.1.10.1 Message definition

The PMFP PLR REPORT RESPONSE message is sent by either UE or the UPF to respond the PMFP PLR REPORT REQUEST message and report the counting result.

See table 6.2.1.10.1-1.

Message type: PMFP PLR REPORT RESPONSE

Significance: dual

Direction: both

Table 6.2.1.10.1-1: PMFP PLR REPORT RESPONSE message content

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | PMFP PLR report response message identity | Message type  6.2.2.1 | M | V | 1 |
|  | EPTI | Extended procedure transaction identity  6.2.2.2 | M | V | 2 |
|  | Counting result | Counting result  6.2.2.10 | M | V | 4 |
|  | Additional measurement indication | Additional measurement indication  6.2.2.9 | O | TV | 1 |

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

#### 6.2.2.9 Additional measurement indication

The purpose of the additional measurement indication information element is to indicate whether to restart counting for another PLR measurement.

The additional measurement indication is a type 1 information element.

The additional measurement indication information element is coded as shown in figure 6.2.2.9-1 and table 6.2.2.9-1.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | | 4 | 3 | | 2 | | | 1 |  |
| Additional measurement indication IEI | | | | 0  spare | | | 0  spare | | 0  spare | RC | | octet 1 |

Figure 6.2.2.9-1: Additional measurement indication information element

Table 6.2.2.9-1: Additional measurement indication information element

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Restart counting (RC) (octet 1, bit 1) | | | | |
| Bit | | | | |
| 1 |  |  |  |  |
| 0 |  |  |  | Restart counting is not required |
| 1 |  |  |  | Restart counting is required |
|  | | | | |

\* \* \* End of Changes \* \* \* \*