**3GPP TSG-CT WG3 Meeting #115e C3-213215**

**E-Meeting, 19th – 28th May 2021 (Revision of C3-212350)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.561** | **CR** | **0109** | **rev** | **1** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Updates to support L2TP in Diameter message flow | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | BEPoP | | | | |  | ***Date:*** | | | 2021-05-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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:*** | | CT4 has been studied and agreed L2TP supporting for CUPS in WI BEPoP,  TR 29.820 has also concluded to support L2TP tunneling over N6/SGi for 5GC/EPS is to be standardized based on the solution#8 as described in 6.8 in Rel-17, and CT3 scope has been added in WI BEPoP.  Meanwhile, SA2 LS Reply on the support of L2TP with CUPS in rel-17 to support L2TP tunnelling over N6/SGi for 5GS and EPS with TS 23.501 CR 2691 and TS 23.502 CR 2602 approved.  Hence the related L2TP support and attributes for RADIUS messages need to be added.  And the Diameter messages are wrongly referred to subclause 16.4 of TS 29.061. | | | | | | | | |
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| ***Summary of change:*** | | Correct the Diameter messages as defined in subclause 16a.4 of 3GPP TS 29.061, and adding the differences to refer to the basic attributes in Diameter messages to support L2TP for CUPS across N6 interface. | | | | | | | | |
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| ***Consequences if not approved:*** | | Missing the Diameter attributes in the related Diameter messages to support L2TP in this specification. | | | | | | | | |
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| ***Clauses affected:*** | | 12.6.1 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 23.501 CR 2691  TS 23.502 CR 2602 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

### 12.6.1 General

This clause describes the N6 Diameter messages.

The relevant AVPs that are of use for the N6 interface are detailed in this subclause. Other Diameter AVPs as defined in IETF RFC 4072 [25] and IETF RFC 7155 [23], even if their AVP flag rules are marked with "M", are not required for being compliant with the current specification.

Diameter messages as defined in subclause 16a.4 of 3GPP TS 29.061 [5] are re-used in 5G with the following differences:

- SMF or SMF+PGW-C replaces P-GW, and GGSN related description are not applicable for 5G.

- 5G QoS flow replaces IP-CAN/EPS bearer and PDU session replaces IP-CAN session.

- N6 replaces Gi/Sgi.

NOTE 1: N6 re-used and specific AVPs are specified in subclause 12.3 and subclause 12.4.

- 3GPP-NAI AVP may be included in the AAR and ACR command.

- 3GPP-NID AVP may be included together with 3GPP-SGSN-MCC-MNC AVP in the AAR and ACR command.

- 3GPP-Session-S-NSSAI AVP and/or 3GPP-Session-Id may be included in the AAR and ACR command.

- Multiple 3GPP-IP-Address-Pool-Info AVPs may be included in the AAR command and one or two 3GPP-IP-Address-Pool-Info AVPs may be included in the AAA and ACR command.

- Multiple 3GPP-UE-MAC-Address AVPs may be included in the AAR and ACR command.

- For indicating user location, TWAN-Identifier AVP, 3GPP-TNAP-Identifier AVP, 3GPP-HFC-NodeId AVP, 3GPP-GLI AVP, 3GPP-Line-TypeAVP may be included in the AAR and ACR command.

- Acct-Application-Id AVP shall be included in the ACR and ACA command as specified in IETF RFC 7155 [23].

- Additional Diameter messages needed for 5G compared to the 3GPP TS 29.061 [5] are described in the following subclauses.

- Multiple Supported-Features AVPs may be included in the ACR and ACA command.

NOTE m: For the L2TP tunnel AVPs in AAA command in the subclause 16a.4.2 of 3GPP TS 29.061 [5], the other optional AVPs starting with "Tunnel-" can be referred to the IETF RFC 7155[23] with implementation specific.

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