**3GPP TSG-RAN2 Meeting #121-bis-eR2-230xxxx**

**Online 17th – 26th April, 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.306** | **CR** | **XXXX** | **rev** | **-** | **Current version:** | **17.4.0** |  |
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| *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 | **X** | Core Network |  |

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| ***Title:***  | Correction on MBS capabilities |
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| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | NR\_MBS-Core |  | ***Date:*** | 2023-04-23 |
|  |  |  |  |  |
| ***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)**Rel-19 (Release 19)* |
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| ***Reason for change:*** | In RAN2#112-e meeting and RAN2#116-e meeting, it was agreed that ROHC and EHC are supported for MBS multicast MRB:

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| Agreement* **RoHC (at least U-mode) can be configured for NR MBS bearers. This is applicable for Mcast, assume this is applicable also to broadcast.**
* **EHC is supported for MRB for cases when feedback path is available (UL RLC) and it is expected that no further optimizations are needed.**
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However, in current 38.306, the description on the applicability of related EHC and RoHC capabilities (i.e. *ehc-r16* and *jointEHC-ROHC-Config-r16*) for multicast MRBs are missing. To make these features applicable for multicast MRBs, the field description of the related capabilities needs tp be corrected.  |
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| ***Summary of change:*** | Correct that *ehc-r16* and *jointEHC-ROHC-Config-r16* capabilities are also applicable for multicast MRBs. **Impact analysis**Impacted 5G architecture options:NR SA, NE-DC, NR-DCImpacted functionality:MBS Inter-operability: 1. If the network is implemented according to the CR and the UE is not, the configuration related to header compression may not be correctly implemented by the UE;2. If the UE is implemented according to the CR and the network is not, there is no inter-operability issue. |
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| ***Consequences if not approved:*** | EHC configuration and joint EHC and RoHC configruation can not be configured for multicast MRBs.  |
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| ***Clauses affected:*** | 4.2.4  |
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|  | **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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |
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<Start of modification>

4.2.4 PDCP Parameters

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| **Definitions for parameters** | **Per** | **M** | **FDD-TDD DIFF** |
| ***continueEHC-Context-r16***Indicates that the UE supports EHC context continuation operation where the UE keeps the established EHC context(s) upon PDCP re-establishment, as specified in TS 38.323 [16]. | UE | No | No |
| ***continueROHC-Context***Defines whether the UE supports ROHC context continuation operation where the UE does not reset the current ROHC context upon PDCP re-establishment, as specified in TS 38.323 [16]. | UE | No | No |
| ***ehc-r16***Indicates that the UE supports Ethernet header compression and decompression using EHC protocol, as specified in TS 38.323 [16]. The UE indicating this capability and indicating support for at least one ROHC profile, shall support simultaneous configuration of EHC and ROHC on different DRBs/multicast MRBs. | UE | No | No |
| ***extendedDiscardTimer-r16***Indicates whether the UE supports the additional values of PDCP discard timer. The supported additional values are 0.5ms, 1ms, 2ms, 4ms, 6ms and 8ms, as specified in TS 38.331 [9]. | UE | No | No |
| ***jointEHC-ROHC-Config-r16***Indicates whether the UE supports simultaneous configuration of EHC and ROHC protocols for the same DRB/multicast MRB.  | UE | No | No |
| ***maxNumberROHC-ContextSessions***Defines the maximum number of ROHC header compression context sessions supported by the UE across all DRBs and multicast MRBs, excluding context sessions that leave all headers uncompressed. | UE | No | No |
| ***maxNumberEHC-Contexts-r16***Defines the maximum number of Ethernet header compression contexts supported by the UE across all DRBs and multicast MRBs and across UE's EHC compressor and EHC decompressor. The indicated number defines the number of contexts in addition to CID = "all zeros" as specified in TS 38.323 [16]. | UE | No | No |
| ***outOfOrderDelivery***Indicates whether UE supports out of order delivery of data to upper layers by PDCP. | UE | No | No |
| ***pdcp-DuplicationMCG-OrSCG-DRB***Indicates whether the UE supports CA-based PDCP duplication over MCG or SCG DRB as specified in TS 38.323 [16]. | UE | No | No |
| ***pdcp-DuplicationMoreThanTwoRLC-r16***Defines whether the UE supports PDCP duplication with more than two RLC entities as specified in TS 38.323 [16]. The UE supporting this feature supports secondary RLC entity(ies) activation and deactivation based on duplication RLC Activation/Deactivation MAC CE as specified in TS 38.321 [8]. A UE supporting this feature shall also support *pdcp-DuplicationMCG-OrSCG-DRB*, *pdcp-DuplicationSplitDRB*, *pdcp-DuplicationSplitSRB* and *pdcp-DuplicationSRB*. | UE | No | No |
| ***pdcp-DuplicationSplitDRB***Indicates whether the UE supports PDCP duplication over split DRB as specified in TS 38.323 [16]. | UE | No | No |
| ***pdcp-DuplicationSplitSRB***Indicates whether the UE supports PDCP duplication over split SRB1/2 as specified in TS 38.323 [16]. | UE | No | No |
| ***pdcp-DuplicationSRB***Indicates whether the UE supports CA-based PDCP duplication over SRB1/2 and/or, if (NG)EN-DC is supported, SRB3 as specified in TS 38.323 [16]. | UE | No | No |
| ***shortSN***Indicates whether the UE supports 12 bit length of PDCP sequence number. | UE | Yes | No |
| ***supportedROHC-Profiles***Defines which ROHC profiles from the list below are supported by the UE:- 0x0000 ROHC No compression (RFC 5795)- 0x0001 ROHC RTP/UDP/IP (RFC 3095, RFC 4815)- 0x0002 ROHC UDP/IP (RFC 3095, RFC 4815)- 0x0003 ROHC ESP/IP (RFC 3095, RFC 4815)- 0x0004 ROHC IP (RFC 3843, RFC 4815)- 0x0006 ROHC TCP/IP (RFC 6846)- 0x0101 ROHC RTP/UDP/IP (RFC 5225)- 0x0102 ROHC UDP/IP (RFC 5225)- 0x0103 ROHC ESP/IP (RFC 5225)- 0x0104 ROHC IP (RFC 5225)A UE that supports one or more of the listed ROHC profiles shall support ROHC profile 0x0000 ROHC uncompressed (RFC 5795).An IMS voice capable UE shall indicate support of ROHC profiles 0x0000, 0x0001, 0x0002 and be able to compress and decompress headers of PDCP SDUs at a PDCP SDU rate corresponding to supported IMS voice codecs. | UE | No | No |
| ***udc-r17***Indicates whether the UE supports the uplink data compression operation as specified in TS 38.323 [16]. The capability signalling comprises of the following parameters:- *standardDictionary-r17* indicates whether the UE supports UL data compression with SIP static dictionary as defined in TS 38.323 [16].- *operatorDictionary-r17* indicates whether the UE supports UL data compression with operator defined dictionary. In this release, the UE can only support one operator defined dictionary. If the UE supports operator defined dictionary, the UE shall report *versionOfDictionary-r17* and *associatedPLMN-ID-r17* of the stored operator defined dictionary as defined in TS 38.331 [9]. This parameter is not required to be present if the UE is in VPLMN. The *associatedPLMN-ID-r17* is only associated to the operator defined dictionary which has no relationship with UE's HPLMN ID.- *continueUDC-r17* indicates whether the UE supports continuation of uplink data compression protocol operation where the UE does not reset the buffer upon PDCP re-establishment, as specified in TS 38.323 [16].- *supportOfBufferSize-r17* indicates which compression buffer size the UE supports as specified in TS 38.323 [16]. Value kbyte4 means the UE supports 4096 bytes for compression buffer per UDC DRB. Value kbyte8 means the UE supports 8192 bytes for compression buffer per UDC DRB.A UE that supports the uplink data compression operation shall support 2048 bytes for compression buffer per UDC DRB and support up to 2 UDC DRBs. | UE | No | No |
| ***uplinkOnlyROHC-Profiles***Indicates the ROHC profile(s) that are supported in uplink-only ROHC operation by the UE.- 0x0006 ROHC TCP (RFC 6846)A UE that supports uplink-only ROHC profile(s) shall support ROHC profile 0x0000 ROHC uncompressed (RFC 5795). | UE | No | No |

<End of modification>