3GPP TSG-RAN WG3 Meeting #108-e R3-204142

**Online, 1st – 11th June 2020**

**Agenda Item: 17.4**

**Source: Ericsson**

**Title: EHC updates on E1AP TP**

**Document for: Discussion and Decision**

1 Introduction

In this contribution we propose to update the EHC configuration IE in E1AP so that it is synched with RAN 2 specifications.

The wording, “shall, if supported” is changed to “may” related to gNB-CU-U action.

2 Discussion

A number of EHC related parmeters have been changed in RAN2 [1] associated with the Ethernet Header Compression .configuration.

ethernetHeaderCompression-r16 CHOICE {

notUsed NULL,

ehc SEQUENCE {

ehc-Common SEQUENCE {

ehc-CID-Length ENUMERATED { bits7, bits15 },

...

},

ehc-Downlink SEQUENCE {confb

drb-ContinueEHC-DL ENUMERATED { true } OPTIONAL, -- Need N

...

} OPTIONAL, -- Need M

ehc-Uplink SEQUENCE {

drb-ContinueEHC-UL ENUMERATED { true } OPTIONAL, -- Need N

...

} OPTIONAL, -- Need M

...

},

...

} OPTIONAL -- Cond DRB2

Among the changes applicable to the RAN3 specifications it can be seen that the “ehc-HeaderSize” has be to “ehc-CID-Length” while the its values set has been changed to ENUMERATED { bits7, bits15 }

These changes should be carried to the EHC BL CR for 38.463

1. Update the EHC Parameters IE in 38.463 to sync them to the latest RAN2 specification

3 Conclusion

Agree on the proposals below

1. Update the EHC Parameters IE in 38463 to sync them to the latest RAN2 specification

4 References

1. draft R2-2002703 Correction of NR IIoT 38331\_v7

TP for EHC BL CR for TS 38.463

### 8.3.1 Bearer Context Setup

#### 8.3.1.1 General

The purpose of the Bearer Context Setup procedure is to allow the gNB-CU-CP to establish a bearer context in the gNB-CU-UP. The procedure uses UE-associated signalling.

#### 8.3.1.2 Successful Operation



Figure 8.3.1.2-1: Bearer Context Setup procedure: Successful Operation.

The gNB-CU-CP initiates the procedure by sending the BEARER CONTEXT SETUP REQUEST message to the gNB-CU-UP. If the gNB-CU-UP succeeds to establish the requested resources, it replies to the gNB-CU-CP with the BEARER CONTEXT SETUP RESPONSE message.

**//skip the unchanged part**

For EN-DC, if the *Subscriber Profile ID for RAT/Frequency priority* IE is included in the UE CONTEXT SETUP REQUEST, the gNB-CU-UP may use it to apply specific RRM policies as specified in TS 36.300 [25]. If the *Additional RRM Policy Index* IE is included in the UE CONTEXT SETUP REQUEST, the gNB-CU-UP may use it to apply specific RRM policies as specified in TS 36.300 [25].

For each QoS flow whose DRB has been successfully established and the *QoS Monitoring Request* IE was included in the *QoS Flow Level QoS Parameters* IE contained in the BEARER CONTEXT SETUP REQUEST message, the gNB-CU-UP shall store this information, and, if supported, perform delay measurement and QoS monitoring, as specified in TS 23.501 [20].

For each requested DRB, if the *EHC Parameters* IE is included in the *PDCP Configuration* IE, the gNB-CU-CP shall, if supported, also include *ROHC Parameters* IE in the *PDCP Configuration* IE in the BEARER CONTEXT SETUP REQUEST message, to enable the gNB-CU-UP to perform appropriate header compression.

If the *EHC parameters* IE is included in the *PDCP Configuration* IE contained in the BEARER CONTEXT SETUP REQUEST message, the gNB-CU-UP may take these parameters into account to perform appropriate header compression for the concerned DRB.

#### <<<<<<<<<<<<<<<<<<<< Next Changes >>>>>>>>>>>>>>>>>>>>

#### 9.3.1.xx EHC Parameters

This IE carries the EHC parameters for ethernet header compression.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** |
| **EHC Common** | M |  |  |  |
| >EHC- CID-Length | M |  | ENUMERATED { bits7, bits15, … } | See description of ehc- CID-Length in TS 38.331 [10] |
| **EHC Downlink** | O |  |  |  |
| >drb-ContinueEHC-DL | M |  | ENUMERATED { true, … } | See description of drb-ContinueEHC-DL in TS 38.331 [10] |
| **EHC Uplink** | O |  |  |  |
| >drb-ContinueEHC-UL | M |  | ENUMERATED { true, … } | See description of drb-ContinueEHC-UL in TS 38.331 [10] |

<<<<<<<<<<<<<<<<<<<< End of 1st Change >>>>>>>>>>>>>>>>>>>>

**-- TEXT OMITTED –**

### 9.4.5 Information Element Definitions

**-- TEXT OMITTED –**

<<<<<<<<<<<<<<<<<<<< 2nd Change >>>>>>>>>>>>>>>>>>>>

EHC-Common-Parameters ::= SEQUENCE {

ehc-CID-Length ENUMERATED { bits7, bits15, ...},

iE-Extensions ProtocolExtensionContainer { { EHC-Common-Parameters-ExtIEs } } OPTIONAL

}

EHC-Common-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EHC-Downlink-Parameters ::= SEQUENCE {

drb-ContinueEHC-DL ENUMERATED { true, ...},

iE-Extensions ProtocolExtensionContainer { { EHC-Downlink-Parameters-ExtIEs } } OPTIONAL

}

EHC-Downlink-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EHC-Uplink-Parameters ::= SEQUENCE {

drb-ContinueEHC-DL ENUMERATED { true, ...},

iE-Extensions ProtocolExtensionContainer { { EHC-Uplink-Parameters-ExtIEs } } OPTIONAL

}

EHC-Uplink-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EHC-Parameters ::= SEQUENCE {

ehc-Common EHC-Common-Parameters,

ehc-Downlink EHC-DL-Parameters OPTIONAL,

ehc-Uplink EHC-UL-Parameters OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { EHC-Parameters-ExtIEs } } OPTIONAL

}

EHC-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

<<<<<<<<<<<<<<<<<<<< End of Changes >>>>>>>>>>>>>>>>>>>>