**3GPP TSG-RAN WG2 Meeting #101 *R2-18xxxxx***

**Athens, Greece, 26th February - 2nd March 2018**

**Agenda item: 10.4.3.1**

**Source: Huawei**

**Title:** **Updated text proposal on discussion [NR-AH1801#21][NR] 38.331 ASN.1 review part 3 – L2 params (Huawei)**

**Document for: Discussion and Decision**

# Introduction

This document provides a merged pseudo CR for the results of the L2 parameters portion of the email discussion on the ASN.1 review for 38.331.

The following sections are involved in this CR and can be recognised inline by the absence of blue highlighting:

6.3.2.x LogicalChannelConfig

6.3.2.x MAC-CellGroupConfig

6.3.2.x PDCP-Config

6.3.2.x RLC-Config

6.3.2.x SchedulingRequest-Config

6.3.2.x SDAP-Config

6.3.2.x SPS-Config

6.3.2.x ConfiguredGrantConfig

9 Specified and default radio configurations

The contents have been updated to take account of decisions in RAN2#101.

**3GPP TSG-RAN WG2 Meeting #101 *R2-180xxxx***

**Athens, Greece, 26th February - 2nd March 2018**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v11.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.331** | **CR** | **CRNum** | **rev** | **-** | **Current version:** | **15.0.1** |  |
|  | | | | | | | | |
| *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 | **X** | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | TP from email discussion [101#03][NR] 38.331 CR part 3 (Huawei) | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Rapporteur (Huawei) | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Core | | | | |  | | ***Date:*** | | 2018-03-05 |
|  |  | | | |  | | |  | |  |
| ***Category:*** | **F** |  | | | | | | ***Release:*** | | Rel-15 |
|  | *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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Corrections identified during ASN.1 review (RAN2 NR AH 1801), during email discussions after the AH, and during further ASN.1 review (RAN2#101).  This CR is based on  R2-1801218 Baseline TS 38331 v1.0.1 for ASN.1 review | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Extensive changes resulting from ASN.1 review of the sections relating to L2 parameters. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Corrections to the ASN.1 for L2 parameters are not captured. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.3.2, 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:*** | |  | | | | | | | | |

#### – *LogicalChannelConfig*

The IE *LogicalChannelConfig* is used to configure the logical channel parameters.

*LogicalChannelConfig* information element

-- ASN1START

-- TAG-LOGICAL-CHANNEL-CONFIG-START

LogicalChannelConfig ::= SEQUENCE {

ul-SpecificParameters SEQUENCE {

priority INTEGER (1..16),

prioritisedBitRate ENUMERATED {kBps0, kBps8, kBps16, kBps32, kBps64, kBps128, kBps256, kBps512,

kBps1024, kBps2048, kBps4096, kBps8192, kBps16384, kBps32768, kBps65536, infinity},

bucketSizeDuration ENUMERATED {ms50, ms100, ms150, ms300, ms500, ms1000, spare2, spare1},

allowedServingCells SEQUENCE (SIZE (1..maxNrofServingCells-1)) OF ServCellIndex OPTIONAL, -- Need R

allowedSCS-List SEQUENCE (SIZE (1..maxSCSs)) OF SubcarrierSpacing OPTIONAL, -- Need R

maxPUSCH-Duration ENUMERATED { ms0p02, ms0p04, ms0p0625, ms0p125, ms0p25, ms0p5, spare2, spare1 } OPTIONAL, -- Need R

configuredGrantType1Allowed ENUMERATED {true} OPTIONAL, -- Need R

logicalChannelGroup INTEGER (0..maxLCG-ID) OPTIONAL, -- Need R

schedulingRequestID SchedulingRequestId OPTIONAL, -- Need R

logicalChannelSR-Mask BOOLEAN,

logicalChannelSR-DelayTimerApplied BOOLEAN

} OPTIONAL, -- Cond UL

-- other parameters

...

}

-- TAG-LOGICAL-CHANNEL-CONFIG-STOP

-- ASN1STOP

|  |
| --- |
| *LogicalChannelConfig field descriptions* |
| ***allowedSCS-List***  If present, UL MAC SDUs from this logical channel can only be mapped to the indicated numerology. Otherwise, UL MAC SDUs from this logical channel can be mapped to any configured numerology. Corresponds to ‘allowedSCS-List’ as specified in TS 38.321 [3]. |
| ***allowedServingCells***  If present, UL MAC SDUs from this logical channel can only be mapped to the serving cells indicated in this list. Otherwise, UL MAC SDUs from this logical channel can be mapped to any configured serving cell of this cell group. Corresponds to 'allowedServingCells' in TS 38.321 [3].] |
| ***bucketSizeDuration***  Value in ms. ms50 corresponds to 50ms, ms100 corresponds to 100ms, and so on. |
| ***configuredGrantType1Allowed***  If present, UL MAC SDUs from this logical channel can be transmitted on a configured grant type 1. Corresponds to 'configuredGrantType1Allowed' in TS 38.321 [3]. |
| ***logicalChannelGroup***  ID of the logical channel group, as specified in TS 38.321 [3], which the logical channel belongs to. |
| ***logicalChannelSR-Mask***  Indicates whether SR masking is configured for this logical channel. |
| ***logicalChannelSR-DelayTimerApplied***  Indicates whether to apply the delay timer for SR transmission for this logical channel. Set to FALSE if *logicalChannelSR-DelayTimer* is not included in *BSR-Config*. |
| ***maxPUSCH-Duration***  If present, UL MAC SDUs from this logical channel can only be transmitted using uplink grants that result in a PUSCH duration shorter than or equal to the the duration indicated by this field. Otherwise, UL MAC SDUs from this logical channel can be transmitted using an uplink grant resulting in any PUSCH duration. Corresponds to "maxPUSCH-Duration' in TS 38.321 [3]. |
| ***priority***  Logical channel priority, as specified in TS 38.321 [3]. |
| ***prioritisedBitRate***  Value in kiloBytes/s. 0kBps corresponds to 0, 8kBps corresponds to 8 kiloBytes/s,16 kBps corresponds to 16 kiloBytes/s, and so on. For SRBs, the value can only be set to infinity. |
| **schedulingRequestId**  If present, it indicates the scheduling request configuration applicable for this logical channel. |

|  |  |
| --- | --- |
| Conditional Presence | Explanation |
| *UL* | The field is mandatory present for a logical channel with uplink if it serves DRB. It is optionally present for a logical channel with uplink if it serves an SRB. otherwise it is not present. |

#### – *MAC-CellGroupConfig*

The IE *MAC-CellGroupConfig* is used to configure MAC parameters for a cell group, including DRX.

*MAC-CellGroupConfig* information element

-- ASN1START

-- TAG-MAC-CELL-GROUP-CONFIG-START

MAC-CellGroupConfig ::= SEQUENCE {

drx-Config SetupRelease { DRX-Config } OPTIONAL, -- Need M

schedulingRequestConfig SchedulingRequestConfig OPTIONAL, -- Need M

bsr-Config BSR-Config OPTIONAL, -- Need M

tag-Config TAG-Config OPTIONAL, -- Need M

phr-Config SetupRelease { PHR-Config } OPTIONAL, -- Need M

-- FFS : configurable per SCell?

skipUplinkTxDynamic BOOLEAN,

-- RNTI value for downlink SPS (see SPS-config) and uplink configured scheduling (see ConfiguredSchedulingConfig).

cs-RNTI SetupRelease { RNTI-Value } OPTIONAL -- Need M

}

DRX-Config ::= SEQUENCE {

drx-onDurationTimer CHOICE {

subMilliSeconds INTEGER (1..31),

milliSeconds ENUMERATED {

ms1, ms2, ms3, ms4, ms5, ms6, ms8, ms10, ms20, ms30, ms40, ms50, ms60,

ms80, ms100, ms200, ms300, ms400, ms500, ms600, ms800, ms1000, ms1200,

ms1600, spare9, spare8, spare7, spare6, spare5, spare4, spare3, spare2, spare1 }

},

drx-InactivityTimer ENUMERATED {

ms0, ms1, ms2, ms3, ms4, ms5, ms6, ms8, ms10, ms20, ms30, ms40, ms50, ms60, ms80,

ms100, ms200, ms300, ms500, ms750, ms1280, ms1920, ms2560, spare9, spare8,

spare7, spare6, spare5, spare4, spare3, spare2, spare1},

drx-HARQ-RTT-TimerDL INTEGER (0..56),

drx-HARQ-RTT-TimerUL INTEGER (0..56),

drx-RetransmissionTimerDL ENUMERATED {

sl0, sl1, sl2, sl4, sl6, sl8, sl16, sl24, sl33, sl40, sl64, sl80, sl96, sl112, sl128,

sl160, sl320, spare15, spare14, spare13, spare12, spare11, spare10, spare9,

spare8, spare7, spare6, spare5, spare4, spare3, spare2, spare1},

drx-RetransmissionTimerUL ENUMERATED {

sl0, sl1, sl2, sl4, sl6, sl8, sl16, sl24, sl33, sl40, sl64, sl80, sl96, sl112, sl128,

sl160, sl320, spare15, spare14, spare13, spare12, spare11, spare10, spare9,

spare8, spare7, spare6, spare5, spare4, spare3, spare2, spare1 },

drx-LongCycleStartOffset CHOICE {

ms10 INTEGER(0..9),

ms20 INTEGER(0..19),

ms32 INTEGER(0..31),

ms40 INTEGER(0..39),

ms60 INTEGER(0..59),

ms64 INTEGER(0..63),

ms70 INTEGER(0..69),

ms80 INTEGER(0..79),

ms128 INTEGER(0..127),

ms160 INTEGER(0..159),

ms256 INTEGER(0..255),

ms320 INTEGER(0..319),

ms512 INTEGER(0..511),

ms640 INTEGER(0..639),

ms1024 INTEGER(0..1023),

ms1280 INTEGER(0..1279),

ms2048 INTEGER(0..2047),

ms2560 INTEGER(0..2559),

ms5120 INTEGER(0..5119),

ms10240 INTEGER(0..10239)

},

-- FFS need for finer offset granulary

-- FFS need for shorter values for long and short cycles

shortDRX SEQUENCE {

drx-ShortCycle ENUMERATED {

ms2, ms3, ms4, ms5, ms6, ms7, ms8, ms10, ms14, ms16, ms20, ms30, ms32,

ms35, ms40, ms64, ms80, ms128, ms160, ms256, ms320, ms512, ms640, spare9,

spare8, spare7, spare6, spare5, spare4, spare3, spare2, spare1 },

drx-ShortCycleTimer INTEGER (1..16)

} OPTIONAL, -- Need R

drx-SlotOffset INTEGER (0..31)

}

PHR-Config ::= SEQUENCE {

phr-PeriodicTimer ENUMERATED {sf10, sf20, sf50, sf100, sf200,sf500, sf1000, infinity},

phr-ProhibitTimer ENUMERATED {sf0, sf10, sf20, sf50, sf100,sf200, sf500, sf1000},

phr-Tx-PowerFactorChange ENUMERATED {dB1, dB3, dB6, infinity},

multiplePHR BOOLEAN,

phr-Type2PCell BOOLEAN,

phr-Type2OtherCell BOOLEAN,

phr-ModeOtherCG ENUMERATED {real, virtual}

}

TAG-Config ::= SEQUENCE {

tag-ToReleaseList SEQUENCE (SIZE (1..maxNrofTAGs)) OF TAG-Id OPTIONAL, -- Need N

tag-ToAddModList SEQUENCE (SIZE (1..maxNrofTAGs)) OF TAG-ToAddMod OPTIONAL -- Need N

}

TAG-ToAddMod ::= SEQUENCE {

tag-Id TAG-Id,

timeAlignmentTimer TimeAlignmentTimer,

...

}

TAG-Id ::= INTEGER (0..maxNrofTAGs-1)

TimeAlignmentTimer ::= ENUMERATED {ms500, ms750, ms1280, ms1920, ms2560, ms5120,ms10240, infinity}

BSR-Config ::= SEQUENCE {

periodicBSR-Timer ENUMERATED {

sf1, sf5, sf10, sf16, sf20, sf32, sf40, sf64, sf80, sf128, sf160, sf320, sf640, sf1280, sf2560, infinity},

retxBSR-Timer ENUMERATED { sf10, sf20, sf40, sf80, sf160, sf320, sf640, sf1280, sf2560, sf5120, sf10240, spare1},

logicalChannelSR-DelayTimer ENUMERATED { sf20, sf40, sf64, sf128, sf512, sf1024, sf2560, spare1} OPTIONAL -- Need R

}

-- TAG-MAC-CELL-GROUP-CONFIG-STOP

-- ASN1STOP

| *MAC-CellGroupConfig* field descriptions |
| --- |
| ***drx-Config***  Used to configure DRX as specified in TS 38.321 [3]. |
| ***drx-HARQ-RTT-TimerDL***  Value in number of symbols. |
| ***drx-HARQ-RTT-TimerUL***  Value in number of symbols. |
| ***drx-InactivityTimer***  Value in multiple integers of 1ms. ms0 corresponds to 0, ms1 corresponds to 1ms, ms2 corresponds to 2ms, and so on. |
| ***drx-onDurationTimer***  Value in multiples of 1/32 ms (subMilliSeconds) or in ms (milliSecond). For the latter, ms1 corresponds to 1ms, ms2 corresponds to 2ms, and so on. |
| ***drx-LongCycleStartOffset***  *drx-LongCycle* in ms and *drx-StartOffset* in multiples of 1ms. |
| ***drx-RetransmissionTimerDL***  Value in number of slots. sl1 corresponds to 1 slot, sl2 corresponds to 2 slots, and so on. |
| ***drx-RetransmissionTimerUL***  Value in number of slots. sl1 corresponds to 1 slot, sl2 corresponds to 2 slots, and so on. |
| ***drx-ShortCycle***  Value in ms. ms1 corresponds to 1ms, ms2 corresponds to 2ms, and so on. |
| ***drx-ShortCycleTimer***  Value in multiples of *drx-ShortCycle*. A value of 1 corresponds to *drx-ShortCycle*, a value of 2 corresponds to 2 \* *drx-ShortCycle* and so on. |
| ***drx-SlotOffset***  Value in 1/32 ms. Value 0 corresponds to 0ms, value 1 corresponds to 1/32ms, value 2 corresponds to 2/32ms, and so on. |
| ***logicalChannelSR-DelayTimer***  Value in number of subframes. sf1 corresponds to one subframe, sf2 corresponds to 2 subframes, and so on. |
| ***multiplePHR***  Indicates if power headroom shall be reported using the Single PHR MAC control element or Multiple PHR MAC control element defined in TS 38.321 [3]. True means to use Multiple PHR MAC control element and False means to use the Single PHR MAC control element defined in TS 38.321 [3]. |
| ***periodicBSR-Timer***  Value in number of sub-frames. Value sf1 corresponds to 1 sub-frame, sf5 corresponds to 5 sub-frames and so on. |
| ***phr-Tx-PowerFactorChange***  Value in dB or PHR reporting as specified in TS 38.321 [3]. Value dB1 corresponds to 1 dB, dB3 corresponds to 3 dB and so on. The same value applies for each serving cell (although the associated functionality is performed independently for each cell). |
| ***phr-ModeOtherCG***  Indicates the mode (i.e. *real* or *virtual*) used for the PHR of the activated cells that are part of the other Cell Group (i.e. MCG or SCG), when DC is configured. |
| ***phr-PeriodicTimer***  Value in number of subframes for PHR reporting as specified in TS 38.321 [3]. sf10 corresponds to 10 subframes, sf20 corresonds to 20 subframes, and so on. |
| ***phr-ProhibitTimer***  Value in number of subframes for PHR reporting as specified in TS 38.321 [3]. sf0 corresponds to 0 subframe, sf10 corresponds to 10 subframes, sf20 corresponds to 20 subframes, and so on. |
| ***phr-Type2PCell***  Indicates whether or not PHR type 2 is reported for the PCell |
| ***phr-Type2OtherCell***  Indicates whether or not PHR type 2 is reported for the PSCell and PUCCH SCells. |
| ***retxBSR-Timer***  Value in number of sub-frames. Value sf10 corresponds to 10 sub-frames, sf20 corresponds to 20 sub-frames and so on. |
| ***skipUplinkTxDynmaic***  Indicates whether If configured, the UE skips UL transmissions for an uplink grant other than a configured uplink grant if no data is available for transmission in the UE buffer as described in TS 38.321 [3]. |
| ***tag-ID***  Indicates the TAG of an SCell, see TS 38.321 [3]. Uniquely identifies the TAG within the scope of a Cell Group (i.e. MCG or SCG). If the field is not configured for an SCell, the SCell is part of the PTAG. |
| ***timeAlignmentTimer***  Value in ms of the *timeAlignmentTimer* for TAG with ID *tag-Id*, as specified in TS 38.321 [3]. |

[…]

#### – *PDCP-Config*

The IE *PDCP-Config* is used to set the configurable PDCP parameters for signalling and data radio bearers.

*PDCP-Config* information element

-- ASN1START

-- TAG-PDCP-CONFIG-START

PDCP-Config ::= SEQUENCE {

drb SEQUENCE {

discardTimer ENUMERATED {ms10, ms20, ms30, ms40, ms50, ms60, ms75, ms100, ms150, ms200, ms250, ms300, ms500, ms750, ms1500, infinity} OPTIONAL, -- Cond Setup

pdcp-SN-SizeUL ENUMERATED {len12bits, len18bits} OPTIONAL, -- Cond Setup2

pdcp-SN-SizeDL ENUMERATED {len12bits, len18bits} OPTIONAL, -- Cond Setup2

headerCompression CHOICE {

notUsed NULL,

rohc SEQUENCE {

maxCID INTEGER (1..16383) DEFAULT 15,

profiles SEQUENCE {

profile0x0001 BOOLEAN,

profile0x0002 BOOLEAN,

profile0x0003 BOOLEAN,

profile0x0004 BOOLEAN,

profile0x0006 BOOLEAN,

profile0x0101 BOOLEAN,

profile0x0102 BOOLEAN,

profile0x0103 BOOLEAN,

profile0x0104 BOOLEAN

},

drb-ContinueROHC BOOLEAN

},

uplinkOnlyROHC SEQUENCE {

maxCID INTEGER (1..16383) DEFAULT 15,

profiles SEQUENCE {

profile0x0006 BOOLEAN

},

drb-ContinueROHC BOOLEAN

},

...

},

integrityProtection ENUMERATED { enabled } OPTIONAL, -- Cond ConnectedTo5GC

statusReportRequired ENUMERATED { true } OPTIONAL, -- Cond Rlc-AM

outOfOrderDelivery BOOLEAN

} OPTIONAL, -- Cond DRB

-- FFS / TODO: Handle more than two secondary cell groups

moreThanOneRLC SEQUENCE {

primaryPath SEQUENCE {

cellGroup CellGroupId OPTIONAL, -- Need R

logicalChannel LogicalChannelIdentity OPTIONAL -- Need R

},

ul-DataSplitThreshold UL-DataSplitThreshold

OPTIONAL, -- Cond SplitBearer

pdcp-Duplication ENUMERATED { true } OPTIONAL, -- Need R

} OPTIONAL, -- Cond MoreThanOneRLC

t-Reordering ENUMERATED {

ms0, ms1, ms2, ms4, ms5, ms8, ms10, ms15, ms20, ms30, ms40, ms50, ms60, ms80, ms100, ms120, ms140, ms160, ms180, ms200, ms220,

ms240, ms260, ms280, ms300, ms500, ms750, ms1000, ms1250, ms1500, ms1750, ms2000, ms2250, ms2500, ms2750,

ms3000, spare28, spare27, spare26, spare25, spare24, spare23, spare22, spare21, spare20,

spare19, spare18, spare17, spare16, spare15, spare14, spare13, spare12, spare11, spare10, spare09,

spare08, spare07, spare06, spare05, spare04, spare03, spare02, spare01 } OPTIONAL, -- Need S

...

}

UL-DataSplitThreshold ::=

-- TAG-PDCP-CONFIG-STOP

-- ASN1STOP

| *PDCP-Config*field descriptions |
| --- |
| ***discardTimer***  Value in ms of *discardTimer* specified in TS 38.323 [5]. Value ms50 corresponds to 50 ms, ms100 corresponds to 100 ms and so on. |
| ***drb-ContinueROHC***  Indicates whether the PDCP entity continues or resets the ROHC header compression protocol during PDCP re-establishment. This field is set to true only in case of reconfiguration with sync where the PDCP termination point is not changed. |
| ***headerCompression***  If *rohc* is configured, the UE shall apply the configured ROHC profile(s) in both uplink and downlink. If *uplinkOnlyROHC* is configured, the UE shall apply the configure ROHC profile(s) in uplink (there is no header compression in downlink). ROHC can be configured for any bearer type. ROHC should be configured at reconfiguration involving PDCP re-establsihment if the RB was previously configured with ROHC. Header compression should not be configured when out-of-order delivery is allowed for PDCP SDUs. |
| ***integrityProtection***  Indicates whether or not integrity protection is configured for this radio bearer. The value of integrityProtection for a DRB can only be changed using reconfiguration with sync.  FFS: text to indicate where to find the key. |
| ***maxCID***  Indicates the value of the MAX\_CID parameter as specified in TS 38.323 [5]  FFS: need to specify something with respect to UE capabilities. |
| ***outOfOrderDelivery***  Indicates whether or not *outOfOrderDelivery* specified in TS 38.323 [5] is configured. Out-of-order delivery is configured only when the radio bearer is established |
| ***pdcp-Duplication***  Indicates whether or not uplink duplication is configured as specified in TS 38.323 [5]. This field is absent in this version of the specification. |
| ***pdcp-SN-Size***  PDCP sequence number size, 12 or 18 bits. |
| ***primaryPath***  Indicates the cell group ID and LCID of the primary RLC entity as specified in TS 38.323 clause 5.2.1 for UL data tranmission when more than one RLC entity is associated with the PDCP entity. In this version of the specification, only cell group ID corresponding to MCG is supported for SRBs. |
| ***pdcp-SN-Size***  PDCP sequence number size, 12 or 18 bits. |
| ***statusReportRequired***  For AM DRBs, indicates whether the DRB is configured to send a PDCP status report in the uplink, as specified in TS 38.323 [5]. For UL DRBs, the value shall be ignored by the UE. |
| ***t-Reordering***  Value in ms of t-Reordering specified in TS 38.323 [5]. Value ms0 corresponds to 0ms, value ms20 corresponds to 20ms, value ms40 corresponds to 40ms, and so on. When the field is absent the UE applies the value *infinity*. |
| ***ul-DataSplitThreshold***  Parameter specified in TS 38.323 [5]. Value b0 corresponds to 0 bits, value b100 corresponds to 100 bits, value b200 corresponds to 200 bits, and so on. Value Infinity corresponds to a path switch mode operation. |
|  |

| **Conditional presence** | **Explanation** |
| --- | --- |
| *DRB* | This field is mandatory present when the corresponding DRB is being set up, not present for SRBs. Otherwise this field is optionally present, need M. |
| *MoreThanOneRLC* | This field is mandatory present upon RRC reconfiguration with setup of a PDCP entity for a radio bearer with more than one associated logical channel and upon RRC reconfiguration with the association of an additional logical channel to the PDCP entity.  Upon RRC reconfiguration when a PDCP entity is associated with multiple logical channels, this field is optionally present need M. Otherwise, this field is absent and all its included parameters are released. |
| *Rlc-AM* | The field is mandatory present upon setup of a PDCP entity for a radio bearer configured with RLC AM. Otherwise, the field is optionally present, need R. |
| *Setup* | The field is mandatory present in case of radio bearer setup. Otherwise the field is optionally present, need M. |
| *SplitBearer* | The field is optional present, need M, in case of radio bearer with more than one associated RLC mapped to different cell groups. Otherwise the field is not present and the UE shall delete any existing value for this field. |
| *ConnectedTo5GC* | The field is optionally present, need R, if EN-DC is not configured, and absent if EN-DC is configured. |
| *Setup2* | This field is mandatory present in case for radio bearer setup for RLC-AM and RLC-UM. This field is optionally present in case for handover and reestablishment for for RLC-UM..Otherwise, ths field is not present. |

[…]

#### – *RLC-Config*

The IE *RLC-Config* is used to specify the RLC configuration of SRBs and DRBs.

*RLC-Config* information element

-- ASN1START

-- TAG-RLC-CONFIG-START

RLC-Config ::= CHOICE {

am SEQUENCE {

ul-AM-RLC UL-AM-RLC,

dl-AM-RLC DL-AM-RLC

},

um-Bi-Directional SEQUENCE {

ul-UM-RLC UL-UM-RLC,

dl-UM-RLC DL-UM-RLC

},

um-Uni-Directional-UL SEQUENCE {

ul-UM-RLC UL-UM-RLC

},

um-Uni-Directional-DL SEQUENCE {

dl-UM-RLC DL-UM-RLC

},

...

}

UL-AM-RLC ::= SEQUENCE {

sn-FieldLength SN-FieldLengthAM

t-PollRetransmit T-PollRetransmit,

pollPDU PollPDU,

pollByte PollByte,

maxRetxThreshold ENUMERATED { t1, t2, t3, t4, t6, t8, t16, t32 }

}

DL-AM-RLC ::= SEQUENCE {

sn-FieldLength SN-FieldLengthAM

t-Reassembly T-Reassembly,

t-StatusProhibit T-StatusProhibit

}

UL-UM-RLC ::= SEQUENCE {

sn-FieldLength SN-FieldLengthUM

}

DL-UM-RLC ::= SEQUENCE {

sn-FieldLength SN-FieldLengthUM

t-Reassembly T-Reassembly

}

T-PollRetransmit ::= ENUMERATED {

ms5, ms10, ms15, ms20, ms25, ms30, ms35,

ms40, ms45, ms50, ms55, ms60, ms65, ms70,

ms75, ms80, ms85, ms90, ms95, ms100, ms105,

ms110, ms115, ms120, ms125, ms130, ms135,

ms140, ms145, ms150, ms155, ms160, ms165,

ms170, ms175, ms180, ms185, ms190, ms195,

ms200, ms205, ms210, ms215, ms220, ms225,

ms230, ms235, ms240, ms245, ms250, ms300,

ms350, ms400, ms450, ms500, ms800, ms1000,

ms2000, ms4000, spare5, spare4, spare3,

spare2, spare1}

PollPDU ::= ENUMERATED {

p4, p8, p16, p32, p64, p128, p256, p512, p1024, p2048, p4096, p6144, p8192, p12288, p16384, p20480,

p24576, p28672, p32768, p40960, p49152, p57344, p65536, infinity, spare8, spare7, spare6, spare5, spare4,

spare3, spare2, spare1}

PollByte ::= ENUMERATED {

kB1, kB2, kB5, kB8, kB10, kB15, kB25, kB50, kB75,

kB100, kB125, kB250, kB375, kB500, kB750, kB1000,

kB1250, kB1500, kB2000, kB3000, kB4000, kB4500,

kB5000, kB5500, kB6000, kB6500, kB7000, kB7500,

mB8, mB9, mB10, mB11, mB12, mB13, mB14, mB15,

mB16, mB17, mB18, mB20, mB25, mB30, mB40, infinity,

spare20, spare19, spare18, spare17, spare16,

spare15, spare14, spare13, spare12, spare11,

spare10, spare9, spare8, spare7, spare6, spare5,

spare4, spare3, spare2, spare1}

T-Reassembly ::= ENUMERATED {

ms0, ms5, ms10, ms15, ms20, ms25, ms30, ms35,

ms40, ms45, ms50, ms55, ms60, ms65, ms70,

ms75, ms80, ms85, ms90, ms95, ms100, ms110,

ms120, ms130, ms140, ms150, ms160, ms170,

ms180, ms190, ms200, spare1}

T-StatusProhibit ::= ENUMERATED {

ms0, ms5, ms10, ms15, ms20, ms25, ms30, ms35,

ms40, ms45, ms50, ms55, ms60, ms65, ms70,

ms75, ms80, ms85, ms90, ms95, ms100, ms105,

ms110, ms115, ms120, ms125, ms130, ms135,

ms140, ms145, ms150, ms155, ms160, ms165,

ms170, ms175, ms180, ms185, ms190, ms195,

ms200, ms205, ms210, ms215, ms220, ms225,

ms230, ms235, ms240, ms245, ms250, ms300,

ms350, ms400, ms450, ms500, ms800, ms1000,

ms1200, ms1600, ms2000, ms2400, spare2, spare1}

SN-FieldLengthUM ::= ENUMERATED {size6, size12}

SN-FieldLengthAM ::= ENUMERATED {size12, size18}

-- TAG-RLC-CONFIG-STOP

-- ASN1STOP

| *RLC-Config*field descriptions |
| --- |
| ***maxRetxThreshold***  Parameter for RLC AM in TS 38.322 [4]. Value t1 corresponds to 1 retransmission, t2 to 2 retransmissions and so on. |
| ***pollByte***  Parameter for RLC AM in TS 38.322 [4]. Value kB25 corresponds to 25 kBytes, kB50 to 50 kBytes and so on. infinity corresponds to an infinite amount of kBytes. |
| ***pollPDU***  Parameter for RLC AM in TS 38.322 [4]. Value p4 corresponds to 4 PDUs, p8 to 8 PDUs and so on. infinity corresponds to an infinite number of PDUs. |
| ***sn-FieldLength***  Indicates the RLC SN field size, see TS 38.322 [4], in bits. Value size6 means 6 bits, size12 means 12 bits, size18 means 18 bits. The value of sn-FieldLength for a DRB shall be changed only using reconfiguration with sync. |
| ***t-PollRetransmit***  Timer for RLC AM inTS 38.322 [4], in milliseconds. Value ms5 means 5ms, ms10 means 10ms and so on. |
| ***t-Reassembly***  Timer for reassembly in TS 38.322 [4], in milliseconds. Value ms0 means 0ms, ms5 means 5ms and so on. |
| ***t-StatusProhibit***  Timer for status reporting in TS 38.322 [4], in milliseconds. Value ms0 means 0ms, ms5 means 5ms and so on. |

|  |  |
| --- | --- |
|  |  |
|  |  |

[…]

#### – *SchedulingRequestConfig*

The IE *SchedulingRequestConfig* is used to configure the parameters, for the dedicated scheduling request (SR) resources.

*SchedulingRequestConfig* information element

-- ASN1START

-- TAG-SCHEDULING-REQUEST-CONFIG-START

SchedulingRequestConfig ::= SEQUENCE {

schedulingRequestToAddModList SEQUENCE (SIZE (1..maxNrofSR-ConfigPerCellGroup)) OF SchedulingRequestToAddMod OPTIONAL, -- Need N

schedulingRequestToReleaseList SEQUENCE (SIZE (1..maxNrofSR-ConfigPerCellGroup)) OF SchedulingRequestId OPTIONAL -- Need N

}

SchedulingRequestToAddMod ::= SEQUENCE {

sr-ConfigIndex SchedulingRequestId,

sr-ProhibitTimer ENUMERATED {ms1, ms2, ms4, ms8, ms16, ms32, ms64, ms128} OPTIONAL, -- Need S

sr-TransMax ENUMERATED { n4, n8, n16, n32, n64, spare3, spare2, spare1}

}

SchedulingRequestId ::= INTEGER (0..7)

-- FFS\_TODO: provide resources for each SchedulingRequestID in ServingCellConfig (TBD whether directly, in PUCCH-Config, in each BWP)

-- TAG-SCHEDULING-REQUEST-CONFIG-STOP

-- ASN1STOP

| *SchedulingRequest-Config*field descriptions |
| --- |
| ***schedulingRequestToAddModList***  List of Scheduling Request configurations to add or modify. |
| ***schedulingRequestToReleaseList***  List of Scheduling Request configurations to release |
| ***sr-ConfigIndex***  Used to modify a SR configuration and to indicate, in LogicalChannelConfig, the SR configuration to which a logical channel is mapped. |
| ***sr-ProhibitTimer***  Timer for SR transmission on PUCCH in TS 38.321 [3]. Value in ms. ms1 corresponds to 1ms, ms2 corresponds to 2ms, and so on. When the field is absent, the UE applies the value 0. |
| ***sr-TransMax***  Maximum number of SR transmissions as described in 38.321 [3]. n4 corresponds to 4, n8 corresponds to 8, and so on. |

[…]

#### – *SDAP-Config*

The IE *SDAP-Config* is used to set the configurable SDAP parameters for a data radio bearer. All configured instances of SDAP-Config with the same value of pdu-Session correspond to the same SDAP entity as specified in TS 37.324 [FFS\_Ref].

*SDAP-Config* information element

-- ASN1START

-- TAG-SDAP-CONFIG-START

SDAP-Config ::= SEQUENCE {

pdu-Session PDU-SessionID,

-- FFS: separate configuration for UL and DL

sdap-HeaderDL ENUMERATED {present, absent},

sdap-HeaderUL ENUMERATED {present, absent},

defaultDRB BOOLEAN,

reflectiveQoS BOOLEAN, -- FFS\_Standalone: It is FFS whether this field is needed

-- A list of QoS-Flow-IDs that the UE shall map to the DRB of this SDAP-Config.

mappedQoS-FlowsToAdd SEQUENCE (SIZE (1..maxNrofQFIs)) OF QFI OPTIONAL, -- Need N

-- A list of QoS-Flow-IDs that the UE shall no longer map to the DRB of this SDAP-Config.

mappedQoS-FlowsToRelease SEQUENCE (SIZE (1..maxNrofQFIs)) OF QFI OPTIONAL, -- Need N

...

}

QFI ::= INTEGER (0..maxQFI)

PDU-SessionID ::= INTEGER (0..255)

-- TAG-SDAP-CONFIG-STOP

-- ASN1STOP

| *SDAP-Config*field descriptions |
| --- |
| ***defaultDRB***  Indicates whether or not this is the default DRB for this PDU session. Among all configured instances of *SDAP-Config* with the same value of *pdu-Session*, this field shall be set to TRUE in at most one instance of SDAP-Config and to FALSE in all other instances. |
| ***mappedQoS-FlowsToAdd***  Indicates the list of QFIs of QoS flows of the PDU session to be additionally mapped to this DRB. A QFI value can be included at most once in all configured instances of *SDAP-Config* with the same value of *pdu-Session*. |
| ***mappedQoS-FlowsToRelease***  Indicates the list of QFIs of QoS flows of the PDU session to be released from existing QoS flow to DRB mapping of this DRB. |
| ***pdu-Session***  Identity of the PDU session whose QoS flows are mapped to the DRB |
| ***reflectiveQoS***  Indicates whether or not reflective QoS is active for QoS flows transmitted via this DRB. |
| ***sdap-HeaderUL***  Indicates whether or not a SDAP header is present for UL data on this DRB. |
| ***sdap-HeaderDL***  Indicates whether or not a SDAP header is present for DL data on this DRB. |

[…]

#### – *SPS-Config*

Editor’s Note: FFS: RAN1 indicated in the L1 table: “Note: Multiple configurations is possible, how many needs to be determined". RAN2 agreed that SPS can be used on Pcell and SCell... But each UE can use it on at most one serving cell of a cell group at a time. Are the ”multiple configuration” meant for one carrier? Does the UE then use several SPS-RNTIs?

The *SPS-Config* IE is used to configure downlink semi-persistent transmission.

*SPS-Config* information element

-- ASN1START

-- TAG-SPS-CONFIG-START

-- Downlink SPS may be configured on the PCell as well as on SCells. But it shall not be configured for more than

-- one serving cell of a cell group at once.

SPS-Config ::= SEQUENCE {

-- Periodicity for DL SPS

-- Corresponds to L1 parameter 'semiPersistSchedIntervalDL' (see 38.214 and 38.321, section FFS\_Section)

-- FFS\_Value: Support also shorter periodicities for DL?

periodicity ENUMERATED {ms10, ms20, ms32, ms40, ms64, ms80, ms128, ms160, ms320, ms640,

spare6, spare5, spare4, spare3, spare2, spare1},

-- Number of configured HARQ processes for SPS DL. Corresponds to L1 parameter 'numberOfConfSPS-Processes' (see 38.214, section FFS\_Section)

nrofHARQ-Processes INTEGER (1..8),

-- HARQ resource for PUCCH for DL SPS. The network configures the resource either as format0 or format1. (see 38.214, section FFS\_Section)

n1PUCCH-AN PUCCH-Resource OPTIONAL -- Need M

}

-- TAG-SPS-CONFIG-STOP

-- ASN1STOP

| *SPS-Config*field descriptions |
| --- |
| ***n1PUCCH-AN***  HARQ resource for PUCCH for DL SPS. The network configures the resource either as format0 or format1. |
| ***nrofHARQ-Processes***  Number of configured HARQ processes for SPS DL. Corresponds to L1 parameter 'numberOfConfSPS-Processes' |
| ***periodicity***  Periodicity for DL SPS, corresponding to L1 parameter ‘semiPersistSchedIntervalDL’. |

#### – *ConfiguredGrantConfig*

The IE *ConfiguredGrantConfig* is used to configure uplink transmission without dynamic grant according to two possible schemes. The actual uplink grant may either be configured via RRC (type1) or provided via the PDCCH (addressed to CS-RNTI) (type2).

*ConfiguredGrantConfig* information element

-- ASN1START

-- TAG-CONFIGUREDGRANTCONFIG-START

ConfiguredGrantConfig ::= SEQUENCE {

-- Frequency hopping as agreed in RAN1-AH18776

frequencyHopping ENUMERATED {mode1, mode2},

-- DMRS configuration, as agreed in RAN1-AH18776

cg-DMRS-Configuration DMRS-UplinkConfig,

-- Indicates the MCS table the UE shall use for PUSCH without transform precoding, as agreed in RAN1-AH18776

mcs-Table ENUMERATED {qam64, qam256},

-- Indicates the MCS table the UE shall use for PUSCH with transform precoding, as agreed in RAN1-AH18776

-- When the field is absent the UE applies the value 64QAM

mcs-TableTransformPrecoder ENUMERATED {qam256} OPTIONAL, -- Need S

-- Selection between and configuration of dynamic and semi-static beta-offset, as agreed in RAN1-AH18776

-- Note: For Type 1 UL data transmission without grant, “uci-on-PUSCH” should be set to semiStatic

uci-OnPUSCH SetupRelease { CG-UCI-OnPUSCH

},

-- Configuration of resource allocation type 0 and resource allocation type 1, as agreed in RAN1-AH18776

-- Note: For Type 1 UL data transmission without grant, “resourceAllocation” should be resourceAllocationType0 or resourceAllocationType1

resourceAllocation ENUMERATED { resourceAllocationType0, resourceAllocationType1, dynamicSwitch }

-- Selection between config 1 and config 2 for RBG size for PUSCH. When the field is absent the UE applies the value config1.

-- Note: rbg-Size is used when the transformPrecoder parameter is disabled.

rbg-Size ENUMERATED {config2} OPTIONAL, -- Need S

-- Closed control loop to apply. Corresponds to L1 parameter 'PUSCH-closed-loop-index' (see 38.213, section FFS\_Section)

powerControlLoopToUse ENUMERATED {n0, n1},

-- Index of the P0-PUSCH-AlphaSet to be used for this configuration

p0-PUSCH-Alpha P0-PUSCH-AlphaSetId,

-- Enable transformer precoder for type1 and type2. Absence indicates that it is disabled.

-- Corresponds to L1 parameter 'UL-TWG-tp' (see 38.214, section 6.1.3)

transformPrecoder ENUMERATED {enabled} OPTIONAL, -- Need R

-- The number of HARQ processes configured. It applies for both Type 1 and Type 2

-- Corresponds to L1 parameter 'UL-TWG-numbHARQproc' (see 38.321, section 5.8.2)

nrofHARQ-Processes INTEGER(1..16),

-- The number or repetitions of K:

repK ENUMERATED {n1, n2, n4, n8},

-- If repetitions is used, this field indicates the redundancy version (RV) sequence to use.

-- Corresponds to L1 parameter 'UL-TWG-RV-rep' (see 38.321, section 5.8.2)

repK-RV ENUMERATED {s1-0231, s2-0303, s3-0000} OPTIONAL, -- Cond RepK

-- Periodicity for UL transmission without UL grant for type 1 and type 2

-- Corresponds to L1 parameter 'UL-TWG-periodicity' (see 38.321, section 5.8.2)

-- The following periodicities are supported depending on the configured subcarrier spacing [symbols]:

-- 15kHz: 2, 7, n\*14, where n={1, 2, 4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160, 320, 640}

-- 30kHz: 2, 7, n\*14, where n={1, 2, 4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160, 256, 320, 640, 1280}

-- 60kHz with normal CP: 2, 7, n\*14, where n={1, 2, 4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160, 256, 320, 512, 640, 1280, 2560}

-- 60kHz with ECP: 2, 6, n\*12, where n={1, 2, 4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160, 256, 320, 512, 640, 1280, 2560}

-- 120kHz: 2, 7, n\*14, where n={1, 2, 4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160, 256, 320, 512, 640, 1024, 1280, 2560, 5120}

-- (see 38.214, Table 6.1.2.3-1)

periodicity ENUMERATED {

sym2, sym7, sym1x14, sym2x14, sym4x14, sym5x14, sym8x14, sym10x14, sym16x14, sym20x14,

sym32x14, sym40x14, sym64x14, sym80x14, sym128x14, sym160x14, sym256x14, sym320x14, sym512x14,

sym640x14, sym1024x14, sym1280x14, sym2560x14, sym5120x14,

sym6, sym1x12, sym2x12, sym4x12, sym5x12, sym8x12, sym10x12, sym16x12, sym20x12, sym32x12,

sym40x12, sym64x12, sym80x12, sym128x12, sym160x12, sym256x12, sym320x12, sym512x12, sym640x12,

sym1280x12, sym2560x12

},

-- If configured, the UE uses the configured grant timer (see 38.321, section 5.8.2) with this initial timer value.

-- Supported values are as follows in units of symbols:

-- For normal CP: 2, 7, {1, 2, 4, 5, 8, 10, 20, 32, 40, 64, 80, 128, 160, 256, 512, 640 } x 14

-- For extended CP: 2, 6, {1, 2, 4, 8, 20, 40, 80, 128, 160, 256, 320, 512, 640 } x 12

configuredGrantTimer ENUMERATED {

sym2, sym7, sym1x14, sym2x14, sym4x14, sym5x14, sym8x14, sym10x14, sym16x14, sym20x14, sym32x14,

sym40x14, sym64x14, sym80x14, sym128x14, sym160x14, sym256x14, sym512x14, sym640x14,

sym6, sym1x12, sym2x12, sym4x12, sym5x12, sym8x12, sym10x12, sym16x12, sym20x12, sym32x12,

sym40x12, sym64x12, sym80x12, sym128x12, sym256x12, sym320x12, sym512x12, sym640x12

} OPTIONAL, -- Need R

-- Selection between "configured grant" transmission with fully RRC-configured UL grant (Type1)

-- or with UL grant configured by DCI addressed to CS-RNTI (Type2).

rrc-ConfiguredUplinkGrant SEQUENCE {

-- Offset related to SFN=0

timeDomainOffset INTEGER (0..5119),

-- Corresponding to the DCI field of time domain resource assignment, and the maximum bit width is 4.

--(see 38.214, section 6.1.2 and 38.212, section 7.3.1)

timeDomainAllocation INTEGER (0..15), -- RAN1 indicated just "Mapping-type,Index-start-len"

-- Corresponding to the DCI field of freq domain resource assignment.

-- (see 38.214, section 6.1.2, and 38.212, section 7.3.1)

frequencyDomainAllocation BIT STRING (SIZE(18)),

-- UE-specific DMRS configuration: corresponding to the DCI field of antenna ports, and the maximum bitwidth is 5.

-- (see 38.214, section 6.1.2, and 38.212, section 7.3.1)

antennaPort INTEGER (0...31),

dmrs-SeqInitialization INTEGER (0...1) OPTIONAL, -- Cond NoTransformPrecoder

precodingAndNumberOfLayers INTEGER (0...63),

srs-ResourceIndicator INTEGER (0...15),

-- The modulation order, target code rate and TB size (see 38.214, section 6.1.2)

mcsAndTBS INTEGER (0..31),

-- Enables intra-slot frequency hopping with the given frequency hopping offset

-- Corresponds to L1 parameter 'UL-TWG-hopping' (see 38.214, section FFS\_Section)

frequencyHoppingOffset INTEGER (1.. maxNrofPhysicalResourceBlocks-1),

pathlossReferenceIndex INTEGER (0..maxNrofPUSCH-PathlossReferenceRSs-1),

...

} OPTIONAL -- Cond Type1

}

CG-UCI-OnPUSCH ::=

-- TAG-CONFIGUREDGRANTCONFIG-STOP

-- ASN1STOP

| *ConfiguredGrantConfig*field descriptions |
| --- |
| ***configuredGrantTimer***  If configured, the UE uses the configured grant timer (see 38.321, section 5.8.2) with this initial timer value. |
| ***frequencyHopping***  Controls frequency hopping for transmission with configured grant. |
| ***nrofHARQ-Processes***  The number of HARQ processes configured. It applies for both Type 1 and Type 2 |
| ***p0-PUSCH-Alpha***  Index of the P0-PUSCH-AlphaSet to be used for this configuration |
| ***periodicity***  Periodicity for UL transmission without UL grant for type 1 and type 2 |
| ***powerControlLoopToUse***  Closed control loop to apply. Corresponds to L1 parameter 'PUSCH-closed-loop-index' (see 38.213, section FFS\_Section) |
| ***rbg-Size***  Selection between config 1 and config 2 for RBG size for PUSCH. When the field is absent the UE applies the value config1. |
| ***repK***  The number or repetitions of K. |
| ***repK-RV***  If repetitions is used, this field indicates the redundancy version (RV) sequence to use. |
| ***resourceAllocation***  Configuration of resource allocation type 0 and resource allocation type 1. For Type 1 UL data transmission without grant, “resourceAllocation” should be resourceAllocationType0 or resourceAllocationType1. |
| ***rrc-ConfiguredUplinkGrant***  Configuration for "configured grant" transmission with fully RRC-configured UL grant (Type1).  NOTE: Type 1 confgured grant may be configured for UL or SUL, but not for both simultaneously. |
| ***transformPrecoder***  Enable transformer precoder for type1 and type2. Absence indicates that it is disabled. |

|  |  |
| --- | --- |
| Conditional Presence | Explanation |
| RepK | The field is mandatory present if *repK* is set to *n2, n4,*or *n8*. It is not present if *repK* is set to *n1*. |

[…]

# 9 Specified and default radio configurations

Specified and default configurations are configurations of which the details are specified in the standard. Specified configurations are fixed while default configurations can be modified using dedicated signalling.

Editor’s Note: FFS / FIXME: Default configurations

## 9.1 Specified configurations

Editor’s Note: FFS

### 9.1.1 Logical channel configurations

### 9.1.2 SRB configurations

#### 9.1.2.1 SRB1/SRB1S

Parameters

| Name | Value | Semantics description | Ver |
| --- | --- | --- | --- |
| RLC configuration |  |  |  |
| *logicalChannelIdentity* | 1 |  |  |

#### 9.1.2.2 SRB2/SRB2S

Parameters

| Name | Value | Semantics description | Ver |
| --- | --- | --- | --- |
| RLC configuration |  |  |  |
| *logicalChannelIdentity* | 2 |  |  |

#### 9.1.2.3 SRB3

Parameters

| Name | Value | Semantics description | Ver |
| --- | --- | --- | --- |
| RLC configuration |  |  |  |
| *logicalChannelIdentity* | 3 |  |  |

## 9.2 Default radio configurations

### 9.2.1 SRB configurations

#### 9.2.1.1 SRB1/SRB1S

Parameters (FFS)

| Name | Value | Semantics description | Ver |
| --- | --- | --- | --- |
| *PDCP-Config*  *>t-Reordering* | *infinity* |  |  |
| *RLC-Config* CHOICE | am |  |  |
| *ul-RLC-Config*  *>sn-FieldLength*  *>t-PollRetransmit*  *>pollPDU*  *>pollByte*  *>maxRetxThreshold* | size12  ms45  infinity  infinity  t4 |  |  |
| *dl-RLC-Config*  *>sn-FieldLength*  *>t-Reassembly*  *>t-StatusProhibit* | size12  ms35  ms0 |  |  |
| *LogicalChannelConfig* |  |  |  |
| *>priority* | 1 | Highest priority |  |
| *>prioritisedBitRate* | infinity |  |  |
| *>bucketSizeDuration* | N/A |  |  |
| *>allowedSubCarrierSpacing* | FFS |  |  |
| *>allowedTiming* | FFS |  |  |
| *>logicalChannelGroup* | 0 |  |  |
| *>logicalChannelSR-DelayTimerApplied* | false |  |  |

#### 9.2.1.2 SRB2/SRB2S

Parameters (FFS)

| Name | Value | Semantics description | Ver |
| --- | --- | --- | --- |
| *PDCP-Config*  *>t-Reordering* | *infinity* |  |  |
| *RLC-Config* CHOICE | am |  |  |
| *ul-RLC-Config*  *>sn-FieldLength*  *>t-PollRetransmit*  *>pollPDU*  *>pollByte*  *>maxRetxThreshold* | size12  ms45  infinity  infinity  t4 |  |  |
| *dl-RLC-Config*  *>sn-FieldLength*  *>t-Reassembly*  *>t-StatusProhibit* | size12  ms35  ms0 |  |  |
| *LogicalChannelConfig* |  |  |  |
| *>priority* | 3 |  |  |
| *>prioritisedBitRate* | infinity |  |  |
| *>bucketSizeDuration* | N/A |  |  |
| *>allowedSubCarrierSpacing* | FFS |  |  |
| *>allowedTiming* | FFS |  |  |
| *>logicalChannelGroup* | 0 |  |  |
| *>logicalChannelSR-DelayTimerApplied* | false |  |  |

#### 9.2.1.3 SRB3

Parameters (FFS)

| Name | Value | Semantics description | Ver |
| --- | --- | --- | --- |
| *PDCP-Config*  *>t-Reordering* | *infinity* |  |  |
| *RLC-Config* CHOICE | am |  |  |
| *ul-RLC-Config*  *>sn-FieldLength*  *>t-PollRetransmit*  *>pollPDU*  *>pollByte*  *>maxRetxThreshold* | size12  ms45  infinity  infinity  t4 |  |  |
| *dl-RLC-Config*  *>sn-FieldLength*  *>t-Reassembly*  *>t-StatusProhibit* | size12  ms35  ms0 |  |  |
| *LogicalChannelConfig* |  |  |  |
| *>priority* | 1 | Highest priority |  |
| *>prioritisedBitRate* | infinity |  |  |
| *>bucketSizeDuration* | N/A |  |  |
| *>allowedSubCarrierSpacing* | FFS |  |  |
| *>allowedTiming* | FFS |  |  |
| *>logicalChannelGroup* | 0 |  |  |
| *>logicalChannelSR-DelayTimerApplied* | false |  |  |











## 