**3GPP TSG-RAN2 Meeting # 131bisR2-250**

**Prague, Czech, 13-17 October, 2025**

**Agenda Item:**

**Source: Huawei, HiSilicon (Rapporteur)**

**Title: ASN1 review for R19 XR RRC CR**

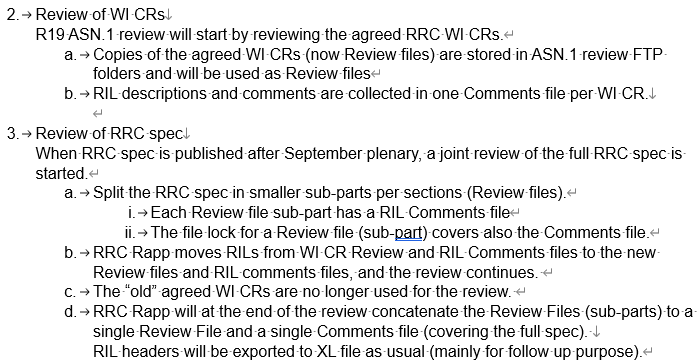
**Document for: Discussion and Decision**

# 1 Introduction

For the ASN1 review for R19, there will be two phases:

* Review of WI-specific CR based on agreed WI RRC CR
* Review of the consolidated RRC CR after RANP when v19.0.0 version of the RRC is produced is prepared by MCC

The following guideline has been given by the RRC rapporteur (Ericsson)



This document collects comments in the “Review of WI CRs” phase of discussion

2. Guideline for comment inputs

The guideline from the RRC rapporteur on how to fill in the fields are as follows:

Xnnn

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn |  |  |  |  |  |  |  |  |

**[Description]**:

**[Proposed Change]**:

**[Comments]**:

|  |  |  |
| --- | --- | --- |
| RIL Id | Number allocated by the company, **one/two letters + 3 digits**, e.g “E123”.  See list of company codes below. | |
| WI | Work Item   * Use code from list below. Should always be filled in. **Single WI code** for single-WI issue, see table below.   + Correction to be captured in WI-specific CR.   + If needed, discussed in RAN2 meeting WI session (agenda point). * **Multiple WI codes, e.g. “WI1, WI2”, in alphabetical order**   + Used if WIs are easily identified.   + Correction to be captured in general “Gen ASN1 CR” (or other CR upon decision)   + To be decided if the RIL discussed in RAN2 meeeting WI session(s) or General ASN.1 session. * **MULTI** for issue affecting multiple WIs.   + Indicate the concerned WIs in Description field, if applicable.   + Correction to be captured in general “Gen ASN1 CR” (or other CR upon decision)   + To be decided if the RIL discussed in RAN2 meeeting WI session(s) or General ASN.1 session. * **GEN** for ASN.1 general issue related to single WI or multiple WIs   + To be used for issues that need ASN.1 experts to conclude e.g. when     - Guidelines are missing or cannot be applied     - Existing solutions in RRC on similar issues cannot be re-used     - Relates to future evolution of the specification | |
| Class | Shall be set by the Delegate to value 1 or 2 (Class 0 issues are collected in separate file, see below).  **Class 0: Expected correction has no functional impact**  - Typo, minor wording improvement etc.  - ASN.1 field not following naming rules (e.g. incorrect suffix, capitalization, etc).  These minor corrections are not collected as RIL in Review file, but in separate Word document, see below.  **Class 1: Expected correction has functional impact but does not affect successful RRC PDU decoding**  - Incorrect/incomplete procedure text  - Incorrect/incomplete field description  - Unsuitable need code (e.g. Need M should be replaced with Need R)  **Class2: Expected correction affects successful RRC PDU decoding**  - Change a field from optional to mandatory or vice versa  - Change of the structure of an IE  - Addition of extension marker within an IE | |
| Title | Short one-line title/description. | |
| Tdoc | Add Tdoc number if the issue needs to be described and the solution is presented in separate Tdoc.  (or just “R2-24xxxxx” if no tdoc number yet allocated allocated) | |
| Delegate | Company(Delegate), e.g. Ericsson(Håkan) | |
| Misc | Leave empty now | |
| File version | Use this field to indicate the vX value of the new version of the Review file that you will upload. This allows us to easier detect recent updates to RILs in the review file. | |
| Status | Set to ToDo.  Rapporteurs may later change this status. | |
| Description | Describe the problem | Can copy spec text and use e.g. tracked changes to propose and discuss/comment.  Use a tag, e.g. [Company/delegate] for identification. |
| Proposed Change | Propose a change/solution |
| Comments | Comments added by other companies. |

3. Collection of comments

We would like to collect the comments for the R19 XR RRC CR by the below

## Xnnn0

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn |  |  |  |  |  |  |  |  |

**[Description]**:

**[Proposed Change]**:

**[Comments]**:

## Xnnn1

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
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**[Description]**:

**[Proposed Change]**:

**[Comments]**:

## V050

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| V050 | XR | 1 | Coexistence of remaining time based RLC retransmission and polling | R2-25xxx | Vivo(Chenli) |  | V002 | ToDo |

**[Description]**: When both remaining time based RLC polling and remaining time based RLC retransmission are configured for the same Tx RLC entity, the threshold for enabling remaining time based RLC retransmission should be set as lower than that for enabling remaining time based RLC polling. Otherwise, the configuration for enabling remaining time based RLC polling will become useless since remaining time based RLC retransmission would have already been triggered before the UE polls the Rx RLC entity to request the STATUS report.

**[Proposed Change]**: In the field description of *remainingTimeThresholdRLC-Polling-r19*, it is better to clarify this restriction, e.g.

| ***remaingTimeThresholdRLC-Polling***  Remaining time threshold used by the PDCP entity to notify the RLC entity to trigger remaining time-based polling as specified in TS 38.323 [4]. Value for the IE *RLC-AM-RemainingTimeThreshold* in milliseconds. The network configures *remaingTimeThresholdRLC-Polling* to be lower than *remainingTimeThresholdRLC-ReTx*, if it is configured. |
| --- |
| ***remainingTimeThresholdRLC-ReTx***  Remaining time threshold used by the PDCP entity to notify the RLC entity to trigger remaining time-based retransmission as specified in TS 38.323 [4]. Value for the IE *RLC-AM-RemainingTimeThreshold* in milliseconds. |

**[Comments]**: [Rapp] It is better to be further discussed with papers 1/ whether the two features of remaining time based polling and remaining time based RLC retransmission can be configured together 2/ if they are configured together, whether any restriction needs to be specified in the field description on the value of which field should be larger than the other one.

## V051

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| V051 | XR | 1 | Restriction on ul-RateQueryConfigList-r19 | R2-25xxx | Vivo(Chenli) |  | V002 | ToDo |

**[Description]**: When both *ul-RateControlConfigList* and *ul-RateQueryConfigList* are configured, the QoS flow configured in the rate query configuration should be the subset of QoS flow configured for the rate control. Otherwise, the QoS flow in the rate control query MAC CE is useless. Thus, it is better to provide such restriction.

**[Proposed Change]**: In the field description of *ul-RateQueryConfigList-r19*, it is better to clarify this restriction, e.g.

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| --- |
| ***ul-RateControlConfigList***  Includes the list of QoS flows for which the UL rate control is supported. |
| ***ul-RateQueryConfigList***  Includes the list of QoS flows for which the UL rate query is supported. The QoS flow(s) configured in rate query should be the subset of QoS flow(s) configured for rate control. |

**[Comments]**: [Rapp] It could be discussed in a paper whether such restriction is needed. Note that the issue was already proposed during the post meeting email discussion. And comment was received that this is not necessary

## H200

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H200 | XR | 2 | Co-configuration of the fields dsr-ReporthingThresholdList and dsr-ReportNonDelayCriticalData |  | Yinghao Guo (Huaiwe) |  | V03 | PropAgree |

**[Description]**: Currently, a conditioanl presence tag has been added for the field dsr-ReportNonDelayCriticalData-r19 that it could only be configured when the field dsr-ReportingThresList-r19 is configured. It is better to create another field for multipleEntry DSR. Under this field, the dsr-ReportingThresList-r19 is mandatory present, and the field dsr-ReportNonDelayCriticalData-r19 is optionaly present. Then, this can imply the realtionship of the two fields with the curren conditional presence tag.

**[Proposed Change]**: Create another field for multipleEntry DSR. Under this field, the dsr-ReportingThresList-r19 is mandatory present, and the field dsr-ReportNonDelayCriticalData-r19 is optionaly present

**[Comments]**:

## N091

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N091 | XR | 1 | UAI for measurement gap cancellation preference | R2-25xxxxx | Chunli WU (Nokia) |  | V04 | ToDo |

**[Description]**: Curren conditions for UAI triggering allow the UE to send the UAI if it has not sent before or otherwise when the prohibit timer is not running. Considering now that we agreed single rohibit timer while the the UAI can include preference for mutliple measurement gaps, it makes sense to allow UAI to be sent for a newly configured measurement gao without delay even if UAI has been sent for other MG before.

**[Proposed Change]**: Revise the first condition to allow such case or add the condition to allow UAI for a newly configured measuremeng gap with preference becomes available:

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| 1> if configured to provide its preference for gap occasion cancellation ratio:  2> if the UE did not transmit a *UEAssistanceInformation* message with *gapOccasionCancelRatio* since it was configured to do so and if the UE has the preference for gap occasion cancellation ratio for at least one measurement gap configuration; or  2> if the preference for gap occasion cancellation ratio becomes available for at least one measurement gap configuration for which preference for gap occasion cancellation ratio has not been included in any *UEAssistanceInformation* message with *gapOccasionCancelRatio* previously transmitted by the UE; or  2> if the UE's preference for gap occasion cancellation ratio has changed for at least one measurement gap configuration since the last transmission of the *UEAssistanceInformation* message with *gapOccasionCancelRatio* and T346o is not running:  3> start the timer T346o with the timer's value set to *gapOccasionCancelRatioProhibitTimer*;  3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to provide UE's preference for gap occasion cancellation ratio. |

**[Comments]**:[Rapp] Since this issue has not been discussed before, it could be discussed by the discussion paper submitted to the next R2 meeting.

## O400

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O400 | XR | 1 | Restriction on additionalPriority-r19 and priorityAdjustmentThreshold-r19 | R2-25xxxxx | Zhe Fu (OPPO) |  | V06 | PropRej |

**[Description]**: Currently, there are no restrictions on whether the enhanced LCP feature is applied only for DRB or not. Our understanding is that *additionalPriority-r19* and *priorityAdjustmentThreshold-r19* are only configured/applied for the logical channel associated with a DRB, as the motivation of the enhanced LCP is to prioritise the transmission of XR traffic with delay-sensitive data. Thus, we suggest reflecting such configuration restrictions for *additionalPriority-r19* and *priorityAdjustmentThreshold-r19*.

**[Proposed Change]**: Select one of the following options to restrict *additionalPriority-r19* and *priorityAdjustmentThreshold-r19* to be configured only for a logical channel associated with a DRB.

Option 1: Add a condition for *enhancedLCP-r19*, as below:

enhancedLCP-r19 SEQUENCE{

priorityAdjustmentThreshold-r19 INTEGER (1..64),

additionalPriority-r19 INTEGER (1..16),

...

} OPTIONAL -- Cond DRB2

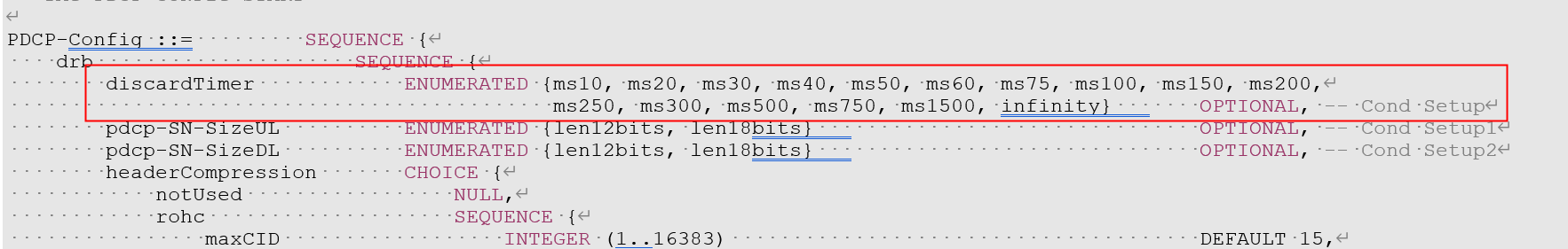
| Conditional presence | Explanation |
| --- | --- |
| *DRB2* | This field is optionally present in case of DRB, need M. Otherwise, it is absent for SRBs and MRBs. |

Option 2: Add some description in the field descriptions of *additionalPriority-r19* and *priorityAdjustmentThreshold-r19*, to clarify the two IEs are configured only for the logical channel associated with a DRB.

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| ***additionalPriority***  The additional logical channel priority that overrides the logical channel priority configured by the field *priority* when the logical channel priority adjustment condition is satisfied as specified in TS 38.321 [3]. For the same logical channel configuration, the value of the field shall be smaller than that of the field *priority*. This field can only be configured for the logical channel associated with a DRB. |
| ***priorityAdjustmentThreshold***  Remaining time threshold for determining whether the additional logical channel priority configured by *additionalPriority* is applied for the logical channel, as specified in TS 38.321 [3]. Value in number of milliseconds. This field can only be configured for the logical channel associated with a DRB. |

**[Comments]**: [Rapp]My feeling is that this is not quite necessary. PDCP discard timer can only be configured for DRB. Then, isnt it obvious that you cannot configure additional priority and the adjustment threshold for the other types of RBs. In addition, there are other previously introduced configurations that are only added for DRB, but without such restriction.

We can trust reasonable implementation



## S038

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S038 | XR | 1 | Checking T346o running status |  | Vinay (Samsung) |  | V07 | PropRej |

**[Description]**: The timer not running condition should be addressed in bullet 1>, as it is a general condition and it is also consistent description as in the legacy spec

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| 5.7.4.2 Initiation ….  1> if configured to provide its preference for gap occasion cancellation ratio:  2> if the UE did not transmit a *UEAssistanceInformation* message with *gapOccasionCancelRatio* since it was configured to do so and if the UE has the preference for gap occasion cancellation ratio for at least one measurement gap configuration; or  2> if the UE's preference for gap occasion cancellation ratio has changed for at least one measurement gap configuration since the last transmission of the *UEAssistanceInformation* message with *gapOccasionCancelRatio* and T346o is not running:  3> start the timer T346o with the timer's value set to *gapOccasionCancelRatioProhibitTimer*;  3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to provide UE's preference for gap occasion cancellation ratio. |

**[Proposed Change]**: Revise to have T346o not running condition check as general and aligned with legacy.

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| 5.7.4.2 Initiation ….  1> if configured to provide its preference for gap occasion cancellation ratio and T346o is not running:  2> if the UE did not transmit a *UEAssistanceInformation* message with *gapOccasionCancelRatio* since it was configured to do so and if the UE has the preference for gap occasion cancellation ratio for at least one measurement gap configuration; or  2> if the UE's preference for gap occasion cancellation ratio has changed for at least one measurement gap configuration since the last transmission of the *UEAssistanceInformation* message with *gapOccasionCancelRatio*:  3> start the timer T346o with the timer's value set to *gapOccasionCancelRatioProhibitTimer*;  3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to provide UE's preference for gap occasion cancellation ratio. |

**[Comments]**: [Rapp] The first condition, highlighted in yellow above, is that the UAI has not been transmitted before. Then is it still necessary to add the T346o is running condition for a case where the timer is not possible to be running?

## S039

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S039 | XR | 1 | Correction on ul-RateQueryProhibitTimer |  | Vinay (Samsung) |  | V07 | PropAgree |

**[Description]**:

FD has inconsistent description. It is not correct to use the term “data rate query MAC CE” as MAC spec only associates this timer with a specific “bit rate query” for a QoS flow.

Typo (“date”)

***ul-RateQueryProhibitTimer***

This timer is used for uplink date rate query MAC CE as specified in TS 38.321 [3]. Value *s0* means 0 s, *s0dot1* means 0.1 s and so on.

**[Proposed Change]**: Corrected description and typo in FD as follows:

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| --- |
| ***ul-RateQueryProhibitTimer***  This timer is used for uplink bit rate query as specified in TS 38.321 [3]. Value *s0* means 0 s, *s0dot1* means 0.1 s and so on. |

**[Comments]**: [Rapp] OK, make sense

## H201

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H201 | XR, LPWUS, AIML,NTN | 2 | OtherConfig for XR, LPWUS, AIML, NTN UAI report |  | Yinghao Guo (Huawei) |  | v05 | **PropAgree** |

**[Description]**: There are multiple non-critical extensions of OtherConfig-v1900 created by XR, LPWUS, AIML,NTN

**[Proposed Change]**: Merge them into a single one.

**[Comments]**:

## H202

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H202 | GEN | 1 | Enhancing the readability of RRC procedure text | R2-250xxxx | Yinghao Guo (Huawei) |  | V09 | ToDo |

**[Description]**: Some chapters for RRC procedure text is too long, e.g., 17 pages for Reception of an RRCReconfiguration by the UE, 13 pages for Actions related to transmission of UEAssistanceInformation message. In these sections, for instance, if you read an if condition for a certain procedure, you need to look for the else if, sometimes, 2 or 3 pages away. The text is getting a bit hard to read because of this.

**[Proposed Change]**: The solution for this case can be : 1/ move the RRC procedure belong to a certain feature to a separate section and refer to these sections in the multiple instances in the main procedure; 2/ avoid duplications in the description and merge them into a single one.

**[Comments]**:

## S055

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S055 | XR | 1 | Reference to ‘same LCH configuration’ |  | Milos (Samsung) |  | V10 | ToDo |

**[Description]**: Current definition of additional priority states that “For the same logical channel configuration, the value of the field shall be smaller than that of the field priority”. It is unclear what “the same logical channel configuration” refers to. Does it refer to two configurations of the same logical channel, or to two sets of configurations of all LCHs at the UE (including e.g. LCG configuration)? Additional priority is set per logical channel, as part of per-LCH configuration; in other words, it should not concern itself with the set of configuration of all LCHs at the UE.

**[Proposed Change]**: Remove “For the same logical channel configuration” bit of the sentence.

**[Comments]**:

Z201

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z202 | XR | 1 | Field description of *ul-RateQueryProhibitTimer* | R2-25xxx | ZTE(Eswar) |  | V010 | ToDo |

**[Description]**: The *ul-RateQueryProhibitTimer* timer is used to control the uplink date rate query procedure, not for control uplink date rate query MAC CE.

**[Proposed Change]**: In the field description of *ul-RateQueryProhibitTimer*, delete the “MAC CE”, e.g.

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| --- |
| ***MAC-CellGroupConfig* field descriptions** |
| ... |
| ***ul-RateQueryProhibitTimer***  This timer is used for uplink date rate query as specified in TS 38.321 [3]. Value *s0* means 0 s, *s0dot1* means 0.1 s and so on. |

**[Comments]**:

Z202

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z203 | XR | 1 | Field description of *remaingTimeThresholdRLC-Polling* and *remainingTimeThresholdRLC-ReTx* | R2-25xxx | ZTE(Eswar) |  | V003 | ToDo |

**[Description]**: *remaingTimeThresholdRLC-Polling* is used to decide whether to trigger the remaining time based polling. If triggered, an indication is used by the PDCP entity to notify the RLC entity to trigger remaining time-based polling.

*remainingTimeThresholdRLC-ReTx* is used to decide whether to trigger remaining time-based retransmission. If triggered, an indication is used by the PDCP entity to notify the RLC entity to trigger remaining time-based retransmission.

**[Proposed Change]**: Correct the field description of *remaingTimeThresholdRLC-Polling* and *remainingTimeThresholdRLC-ReTx*, e.g.

| ***PDCP-Config* field descriptions** |
| --- |
| ... |
| ***remaingTimeThresholdRLC-Polling***  Remaining time threshold used by the PDCP entity to decide whether to notify the RLC entity to trigger remaining time-based polling as specified in TS 38.323 [4]. Value for the IE *RLC-AM-RemainingTimeThreshold* in milliseconds. |
| ***remainingTimeThresholdRLC-ReTx***  Remaining time threshold used by the PDCP entity to decide whether to notify the RLC entity to trigger remaining time-based retransmission as specified in TS 38.323 [4]. Value for the IE *RLC-AM-RemainingTimeThreshold* in milliseconds. |

**[Comments]**: