3GPP TSG-RAN WG1 Meeting #121

**St Julian’s, Malta, May 19th – 23rd, 2025**

Source: Ericsson

Title: WoW for Rel-19 RRC parameter coordination

Document for: Information

# 1 Introduction

For every release, RAN1 prepares and updates the higher layer parameter lists (or a.k.a. RRC list) corresponding to the release WIs/endorsed TEIs and sends the lists primary RAN2 and other WGs via LS.

RAN1 Chairs organizes the activity in RAN1 by assigning a RAN1 RRC Moderator for this activity. The activity starts in a RAN1 meeting and continue for few meetings.

The RAN1 RRC Moderator is responsible to coordinate with the WIs rapporteurs as well as the endorsed TEIs moderators to ensure the list is properly compiled and updated if needed to be sent on time via the LS.

RAN1 Chair has communicated the Rel-19 overall plan in R1-2408102 that includes:

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This document describes the Way of Working (WoW) for coordination between the RAN1 RRC Moderator and WIs rapporteurs/the endorsed TEIs moderators to efficiently execute on the task assigned by RAN1 Chair for any applicable meeting cycle (RAN1#XXX).

The following WoW adopts the similar approach used in Rel-17 and Rel-18 for coordination in RAN1 to prepare the RRC parameter list to be sent to RAN2/RAN3.

# 2 WoW description

The description below used for RAN1#XXX is structured as the following:

* First, the structure of the folders used for exchange of important between the Moderator and Rapporteur is explained.
* Then, the WoW procedure is explained in three steps.
* Finally, the instruction for updating the list for each step is explained.

## 2.1 Folders Structure:

RAN1 RRC Moderator (Sorour) creates the following folders under **draft/9(NR\_R19)** folder for RAN1#XXX.

**Note:**

* **The blue folders are updated ONLY by Rel-19 RAN1 RRC Moderator (Sorour).**
* **The green folders are updates ONLY by the corresponding Rel-19 WI Rapporteur/TEI Moderator.**

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| * **9(NR\_R19)**   + **RRC**     - **Information and Instructions**     - **Collection of RRC parameters**     - **Draft LS**     - **Final output**     - **For Rapporteur Only**       * **AIML**       * **MIMO**       * **SFBD**       * **NES**       * **LP WUS-WUR**       * **Mobility**       * **XR**       * **NR-NTN**       * **IoT-NTN**       * **TDD IoT-NTN**       * **MCE**       * **LB-CA**       * **LTE-5G Broadcast**       * **TEI** |

The purpose of these folders is explained below:

* **Information and Instructions**
  + This folder is updated ONLY by Rel-19 RAN1 RRC Moderator (Sorour).
  + This folder includes this document (i.e. Rel-19 RRC Wow).
  + This folder includes an Excel Sheet containing:
    - A sheet with information about WI and endorsed TEI with their corresponding RRC Moderator.
    - A sheet including a template for the RRC list.
* **Collection of RRC parameters**
  + This folder is used to update and share the updated overall RRC parameter list.
  + This folder is updated ONLY by Rel-19 RAN1 RRC Moderator (Sorour).
* **Draft LS**
  + This folder is used for sharing and reviewing the draft LS prepared by Rel-19 RAN1 RRC Moderator.
  + This folder is updated ONLY by Rel-19 RAN1 RRC Moderator (Sorour).
* **Final output**
  + This folder is used to share the submitted tdocs as the outcome of the work for the meeting.
  + This folder is updated ONLY by Rel-19 RAN1 RRC Moderator (Sorour).
* **For Rapporteur Only**
  + **AIML**
  + **MIMO**
  + **SFBD**
  + **NES**
  + **LP WUS-WUR**
  + **Mobility**
  + **XR**
  + **NR-NTN**
  + **IoT-NTN**
  + **TDD IoT-NTN**
  + **MCE**
  + **LB-CA**
  + **LTE-5G Broadcast**
  + **TEI**
    - Each green folder is dedicated to the corresponding WI/Rapporteur/Moderator.
    - The corresponding WI Rapporteur/TEI Moderator can use the dedicated folder as suits best for her/his discussion, for example in addition to update of the corresponding RRC Excel sheet, to exchange views via updating FL summary.
    - Rel-19 RAN1 RRC Moderator (Sorour) uses the latest update of Excel sheet for a WI in the corresponding WI folder to update the overall Rel-19 RRC list (see next sections for details).

Note that the Main folder (**RRC**) will be used for delegates’ review of the Consolidated higher layer parameters to finalize the LS to RAN2/RAN3.

## 2.2 Procedures for updating the RRC list:

The procedures for the RRC activity in RAN1#XXX meeting include three steps as explained below.

### 2.2.1 Initial step (kick-off activity):

* An Excel sheet with v000 in Collection of RRC parameters is provided by RAN1 RRC Moderator (Sorour).
* For example in RAN1#120: *draft\_Rel-19\_higher\_layer\_parameters\_list\_RAN1#120-v000.xls*
* Note: In case of revision, the version number increased and RAN1 RRC Moderator (Sorour) announces to use the latest uploaded version instead.
  + For Example: *draft\_Rel-19\_higher\_layer\_parameters\_list\_RAN1#120-v001.xls.*
* The WI/TEI Moderator uses V000 (or later revision if available) to prepare the RRC parameter list for contribution submission to the meeting.
* The WI Rapporteur uploads the submitted RRC parameter list to the meeting in the respective WI RRC folder as V000.
* For convenience, please include the corresponding label for the WI in Excel sheet.
  + For example: *higher\_layer\_parameters\_MIMO\_v000.xls* uploaded in the RRC folder dedicated to MIMO.
* Note: Please see the instructions in section 2.3 for how to mark stable/unstable and use color-coding.

### 2.2.2 Intermediate step (review process):

* **First: WI review**, moderated by WI Rapporteur:
  + Corresponding timelines are set by RAN1 Chair. This review is usually conducted as part of the WI general email discussion during the meeting.
  + The WI Rapporteur initiates a discussion during the meeting to review the initial input uploaded in the RRC folder for the WI, and provides updated versions, if needed.
    - The review is based on the companies input to the meeting and the discussion and consequent progress during the meeting.
    - The WI Rapporteur has full freedom to use the dedicated WI folder for any update of the corresponding RRC parameter list based on the discussion during the meeting.
  + When the discussion is concluded, the WI Rapporteur prepares the latest version and uploads that in the corresponding WI RRC folder. This input is used as the starting point for the **Over-all review** (see next).
    - For example: *higher\_layer\_parameters\_MIMO\_v015.xls* is uploaded in RRC folder dedicated to MIMO.
    - Note: If it important to notify RAN1 RRC Moderator (Sorour) if there are more updates such that RAN1 RRC Moderator (Sorour) uses the correct version for **Over-all review**.
* **Second: Over-all review**, moderated by RAN1 RRC Moderator (Sorour):
  + Corresponding timelines are set by RAN1 Chair. This review is usually conducted as part of the post-meeting email discussion during the meeting.
  + The WI Rapporteur informs RAN1 RRC Moderator (Sorour) the files that RAN1 RRC Moderator (Sorour) can use to update the existing file in Collection of RRC parameters to the next version.
    - For example: *higher\_layer\_parameters\_MIMO\_v015.xls* for MIMO.
  + RAN1 RRC Moderator (Sorour) updates the overall RRC parameter list based on the latest updates received from the WI Rapporteurs in their corresponding folders and updates the overall RRC list in Collection of RRC parameters folder.
    - For example: *draft\_Rel-19\_higher\_layer\_parameters\_list\_RAN1#120-v002.xls*
  + RAN1 RRC Moderator (Sorour) kicks off the **over-all review** email discussion based on latest version of the over-all list in list in Collection of RRC parameters folder.
    - For example: *draft\_Rel-19\_higher\_layer\_parameters\_list\_RAN1#120-v002.xls*
  + All delegates can review and provide comments to update the list during this email discussion.
  + RAN1 RRC Moderator (Sorour) provides additional updates if needed during this step, for example based on the comments received during the review process and/or additional inputs by Rapporteurs.
    - The WI Rapporteur can use the dedicated folder, similarly to first step (WI review), and inform RAN1 RRC Moderator (Sorour) on the needed updates. The best way is to create a new version that can REPLACE the old version.
    - Note: It is crucial that RAN1 RRC Moderator (Sorour) and WI Rapporteurs coordinate tightly to remain in sync and avoid any inconsistently in the list.
    - Note: RAN1 RRC Moderator (Sorour) consults with WI Rapporteur to apply technical changes.
  + This process continues until a version of the RRC list in Collection of RRC parameters folder is endorsed by RAN1 Chair.
    - For example: *draft\_Rel-19\_higher\_layer\_parameters\_list\_RAN1#120-v005.xls*
* Note: Please see the instructions in section 2.3 for how to mark stable/unstable and use color-coding.

### 2.2.3 Final step (finalizing LS and backlog RRC list)

* When the **Over-all review** is completed, RAN1 RRC Moderator (Sorour) uses the latest version in Collection of RRC parameters.
  + For example: *draft\_Rel-19\_higher\_layer\_parameters\_list\_RAN1#120-v005.xls*
* RAN1 RRC Moderator (Sorour) provides two files of the latest RRC parameter list:
  + **Backlog-list:**
    - This list includes the entries in ALL rows and will be submitted to RAN1 as backlog.
    - For example: Backlog-list = *draft\_Rel-19\_higher\_layer\_parameters\_list\_RAN1#120-v005.xls*
  + **Output-list:** 
    - This list, includes only entries in rows that are marked as STABLE. This list is sent to RAN2/RAN3 via LS on behalf of RAN1 as attachment to the LS.
      * A draft LS in Draft LS folder is prepared by RAN1 RRC Moderator (Sorour) to be reviewed for sending the RRC list to RAN2/RAN3 for final review.
  + Note: Output-list is sub-set of Backlog-list. Output-list is RAN1 official output to other WGs. Backlog-list is RAN1 backlog for continuation of work, if needed.
* **RAN1 RRC Moderator (Sorour) submits the following from Final Output folder:**
  + LS with Output-list as attachment (Official LS-out to RAN2/RAN3)
  + Backlog-list (For RAN1 use only)
  + Summary of discussion (For information)
* This Backlog-list is used in the next meeting as “The Excel sheet with v000 in Collection of RRC parameters to be provided by RAN1 RRC Moderator (Sorour)” for the Initial Step.
* Note: Please see the instructions in next 2.3 for how to mark stable/unstable and use color-coding.

## 2.3 Instructions for updating the entries in the RRC list:

The description below is based on the approach used in Rel-17 and Rel-18 for coordination and regular update of RRC parameter list:

**Important note:** Please consider the Recommendation guidelines provided in [R1-2305769](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_113/Docs/R1-2305769.zip).

It is beneficial to consider only STABLE (not necessarily complete) RRC parameters in the LS to RAN2/RAN3 (please see motivations in [R1-2305769](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_113/Docs/R1-2305769.zip)). The remaining RRC parameters can be discussed further in RAN1 at the next meetings to be included in the earliest LS to RAN2/RAN3, when identified as STABLE.

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| Background on guidelines:  When Sorour was tasked to coordinate the Rel-17 RAN1 RRC activities, she prepared a set of guidelines based on consulting with RAN2 experts a set of guidelines and shared in [R1-2202913](https://protect2.fireeye.com/v1/url?k=31323334-501cfaf3-313273af-454445554331-1202b01cdb61cff6&q=1&e=57d95dc5-5a7e-4cb2-bb48-a8e58f98b7fd&u=http%3A%2F%2Fwww.3gpp.org%2Fftp%2Ftsg_ran%2FWG1_RL1%2FTSGR1_108-e%2FDocs%2FR1-2202913.zip).  Regarding the RRC recommendation guidelines, RAN2 finally reviewed the original guideline from RAN1 in [R1-2202913](https://protect2.fireeye.com/v1/url?k=31323334-501cfaf3-313273af-454445554331-1202b01cdb61cff6&q=1&e=57d95dc5-5a7e-4cb2-bb48-a8e58f98b7fd&u=http%3A%2F%2Fwww.3gpp.org%2Fftp%2Ftsg_ran%2FWG1_RL1%2FTSGR1_108-e%2FDocs%2FR1-2202913.zip) and with some comments, acknowledged it. The guidelines are updated accordingly and submitted in [R1-2305769](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_113/Docs/R1-2305769.zip).   * **Please rename “Column N” in the list as “Required for initial access or IDLE/INACTIVE** * Please ensure that the guidelines are followed. |

### 2.3.1 How to mark Stable/Unstable:

* For each sheet dedicated to a WI RRC parameter list, a column at the end of the list is included for “Status”. This column is used to identify whether the content of a row in the list is stable or not by using {stable, unstable}, respectively.
  + This column is for RAN1 information only and will not be included in the Output-list for LS to RAN2/RAN3.
* The Output-list for LS to RAN2/RAN3 includes Only the rows that are indicated as “stable”.
* The Backlog-list contains all rows and columns, including Rows indicated as unstable and the Status column, for discussion in next RAN1 meeting.
  + The unstable rows will be discussed further in RAN1 at the next meetings to be included in the earliest LS to RAN2/RAN3 when stable.

### 2.3.2 How to use color coding:

**Important note:** Proper color-coding is crucial to properly indicate to RAN2/RAN3 the changes in the list as compared to previous version. The basic principle is as the following:

When an LS is sent to RAN2/RAN3 using the Output-list:

* The updates in the Output-list as compared to the **previous lists sent** to RAN2/RAN3 via an LS are shown with **blue**.
* The unchanged part of the Output-list as compared to the previous lists sent to RAN2/RAN3 are shown with **black**.
* **In Initial step (section 2.2.1):**
  + **RAN1 RRC Moderator (Sorour):** The list provided in Collection of RRC parameters by RAN1 RRC Moderator (Sorour) (see section 2.2.1) is based on Backlog-list from previous meeting, if any. Note that Backlog-list includes Output-list, if any.
    - For example: *draft\_Rel-19\_higher\_layer\_parameters\_list\_RAN1#120-v000.xls*
    - All rows corresponding to Output-list (i.e. the list in the previous LS) if any, are shown in **black.**
    - The remaining rows (i.e. unstable rows) are highlighted in yellow in **a colored font** (preferably **blue**). Note that **black is NOT** used.
  + **WI Rapporteur**:
    - All rows corresponding to Output-list in the previous LS are shown in **black.**
    - The remaining rows are highlighted in yellow in **a colored font** (preferably **blue**). Note that **black is NOT** used.
      * Note that these highlighted yellow rows can be different from what RAN1 RRC Moderator (Sorour) has provided at this step, since the WI Rapporteur input uses RAN1 RRC Moderator (Sorour)’s input as baseline and applies changes on top to prepare an initial version for WI review.
* **In Intermediate step:**
  + Any text that was **black** in Initial Step and has **remained unchanged**, is shown in **black.**
  + The remaining texts are shown in **a colored font** (preferably **blue**). Note that **black is NOT** used.
* **In Final Step:**
  + In Backlog-list, rows identified as stable, use only **black** and **blue** colors without yellow highlight.
    - Any font color except **black** is changed to **blue**.
  + Then, Output-list is prepared using only stable rows of Backlog-list, with removing the status column.