**3GPP TSG-RAN WG4 #95-e R4-20xxxxx**

**Online, 25th May – 5th June, 2020**

**Title:** Analysis of missing NR-U sections for TS 36.133

**Source:** Ericsson

**Agenda item:** 6.1.5.1

**Document for:** Approval

# Introduction

In this paper we analyse the impact of possible missing sections in 36.133 for NR-U, and specifically whether any CR would need to be agreed to introduce section headings in case some of the NR-U CRs are not agreed to avoid non-contiguous section numbering.

# Analysis

The specification structure plan for 36.133 and 38.133 was agreed in [1]. Top level sections which were planned to be added in 36.133 are shown in table 1.

**Table 1 : New sections planned to be added in 36.133 according to [1]: Outline specification structure for 36.133 and 38.133 NR-U requirements**

|  |  |
| --- | --- |
| 4.2.2.5.7 | Measurements of NR cells operating with CCA |
| 5.3.4A | E-UTRAN - NR FR1 Handover when CCA is used in the target cell |
| 7.31A | Addition and Release Delay of NR PSCell operating with CCA for E-UTRA - NR Dual |
| 8.1.2.4.21A | E-UTRAN FDD – NR measurements when CCA is used |
| 8.1.2.4.22A | E-UTRAN TDD – NR measurements when CCA is used |
| 8.1.2.4.25.2.a | SFTD Measurement delay with CCA on target frequency |
| 8.17.2.2.a | SFTD Measurement requirements with CCA on target frequency |
| 8.17.4A | E-UTRA Inter-RAT NR Measurements when Configured with E-UTRA-NR Dual Connectivity Operation when CCA is used |

We have analyzed CR status at the end of the first round of 36.133, and we have considered the impact to the overall specification structure if one or more of the individual CRs were not to be agreed. The analysis is shown in table 2. The list of sections added/modified is based on cover sheet information.

**Table 2 : Analysis of CRs submitted to RAN4#95e after first round is completed**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Title** | **Company** | **Sections added/modified** | **Status after 1st round** | **Consequence if not agreed and all other 36.133 NR-U CRs agreed** |
| CR to address NR-U in inter-RAT SFTD measurements in 36.133 | ZTE Corporation | 8.1.2.4.25.2a (new), 8.1.2.4.25.3 (modified) | Return to (removal of TBDs) | None - section can be added in future meeting |
| CR to address NR-U in EN-DC SFTD measurements in 36.133 | ZTE Corporation | 8.17.2.2.a (new) | Return to (removal of TBDs) | None - section can be added in future meeting |
| Introduction of addition and release of NR PSCell operating with CCA in EN-DC | Qualcomm Incorporated | 7.31A (new) | Revised to R4-2008565  | None - section can be added in future meeting |
| Updates to general section for NR-U in 36.133 | Ericsson | 2,3.3, 3.6.1 (modified) | Revised to R4-2008557  | None - no new sections added |
| CR to TS 36.133: adding handover to NR-U | Nokia, Nokia Shanghai Bell | 5.3.4.3(modified), 5.3.4A(new) | Revised to R4-2008559  | None - section can be added in future meeting |
| CR to TS 36.133: adding inter-RAT NR-U measurements | Nokia, Nokia Shanghai Bell | 8.1.2.4.21A(new), 8.1.2.4.22A(new) and 8.17.4A(new) | Revised to R4-2008578  | None - section can be added in future meeting |
| UE behaviour after measurement failure due to LBT for RRC\_IDLE state inter-RAT moblity requirements for NR-U | Ericsson | 4.2.2.5.6(new)Note: Section needs to be changed to 4.2.2.5.7 | Revised to R4-2008570  | None - section can be added in future meeting |
| Removal of editor’s note in NR-U inter-RAT handover requirements | Ericsson | N/A | Withdrawn | N/A |
| Removal of editor’s note in NR-U inter-RAT handover requirements | Ericsson | N/A | Postponed | N/A |
| Interruption due to BWP switching at consistent UL failure in 36.133 | Ericsson | 7.32.2.7(modified), 7.36.2.6(modified) | Agreed | None - no new sections added |
| RRC release with redirection requirements in NR-U in 36.133 | Ericsson | 6.3.2.5 (new) | Revised to R4-2008563  | None - section can be added in future meeting |

* **Observation 1: The CRs submitted in RAN4#95-e cover all sections planned for TS 36.133 in [1].**
* **Observation 2: There are no contiguous blocks of text added which come from multiple CRs.**

Since there are no contiguous blocks of text added which come from multiple CRs, there is no need to add any blank section to complete the specification structure in the event that any of the individual CRs are not agreed in RAN4#95e.

* **Agreement: There is no need for blank sections inTS 36.133 to complete the specification structure in the event that any of the individual CRs are not agreed in RAN4#95e. Hence, no CR with blank sections for TS 36.133 is needed.**

# Summary

The following have been observed and proposed as an agreement, based on the analysis.

* **Observation 1: The CRs submitted in RAN4#95-e cover all sections planned for TS 36.133 in [1].**
* **Observation 2: There are no contiguous blocks of text added which come from multiple CRs.**
* **Agreement: There is no need in blank sections for TS 36.133 to complete the specification structure in the event that any of the individual CRs are not agreed in RAN4#95e. Hence, no CR with blank sections for TS 36.133 is needed.**

# References

1. R4-1914628, “Outline specification structure for 36.133 and 38.133 NR-U requirements”, Ericsson