3GPP TSG-RAN WG1 Meeting #100bis-e Tdoc R1-20xxxxx

E-meeting, April 20th - 30th 2020

Agenda: 5

Source: Moderator (Ericsson)

Title: Summary of reply LS on secondary DRX

Document for: Discussion, Decision

# 1 Introduction

RAN2 discussed introduction of a secondary DRX group with Carrier Aggregation in NR during RAN2#108 and made the following conditional agreements:

**Conditional on R1 acceptance:**

* A separate *drx-InactivityTimer* and *drx-onDurationTimer* can be configured for the secondary DRX group. R2 understands that this has zero or almost zero impact in R1 and R4
* The combination of cross-carrier scheduling and secondary DRX group is not supported
* FFS if timers for FR2 DRX configuration are shorter than timers for FR1 DRX configuration.
* The intention is to apply secondary DRX configuration to FR2 and existing DRX configuration to FR1
* We send an LS to R1, ask whether there is impact, and if so whether the impact is acceptable.

RAN1 received an LS [1] from RAN2 to check if this feature can be introduced under TEI16 with no or limited impact to RAN1 specifications.

As guided by chairman, this summary is to collect companies’ views on the LS and draft the reply based on companies’ input.

[100b-e-LS-08] Email discussion/approval for a potential reply LS to R1-2000165 by 4/24 (Ericsson, Claes)

# 2 Discussion

In the LS [1], RAN2 asked the following question:

RAN2 has the intention to introduce this enhancement under TEI16 and would like to check that this has zero or very little impacts to RAN1 and RAN4.

In the contribution submitted to RAN1#100bis-e, companies have identified various areas where there seem to be impact to RAN1 specifications. Based on this input, it would seem difficult to answer there is zero of very little impact to RAN1 specifications.

Thus, RAN1 should provide an answer describing there is RAN1 impact. It would also be preferable to provide some additional information to RAN2 in which areas there is impact. The company input discusses three areas: reception of DCI format 2\_6, i.e. WUS, SCell dormancy and CSI measurements. The company input is summarized below:

Table 1: Summary of company input

|  |  |  |
| --- | --- | --- |
|  | Impact | No or little impact |
| WUS | ZTE, vivo, CATT, Ericsson, HW, MTEK |  |
| SCell dormancy | Vivo | Ericsson |
| CSI measurements/reporting | ZTE | Ericsson, MTEK |

The moderator interprets “impact” that new definitions, even if they are straightforward, will be needed in RAN1 specifications. There seems to be wide-spread understanding that there is impact on WUS, whereas the views on other areas are diverging.

## 2.1 Proposed response

Based on the input in Table 1, we propose the following reply LS, based on the formulation in [3]:

**Draft reply v1 (April 20th):**

**1. Overall Description:**

RAN1 would like to thank RAN2 for the LS R2-1916597 on secondary DRX group.

RAN1 understands that the introduction of secondary DRX configuration is to reduce UE power consumption.

RAN1 has identified that there is RAN1 impact of secondary DRX related to the UE’s behavior of detecting DCI format 2\_6.

**2. Actions:**

**To RAN WG2**

RAN1 respectfully requests RAN2 to take the above into account.

**3. Date of Next TSG-RAN WG1 Meetings:**

TSG-RAN WG1 Meeting #101-e 25th May – 5th June 2020

TSG-RAN WG1 Meeting #102 24th – 28th August 2020 Toulouse, FR

Please provide your comments in the table, including additional explanations of the identified impact. The draft reply will be updated later based on companies’ input.

|  |  |
| --- | --- |
| Company | Comments |
|  |  |
|  |  |
|  |  |

# 3 References

1. R1-2000165, LS on secondary DRX group, RAN2, RAN1#100-e, February 2020

1. [R1-2001581](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2001581.zip), Discussion on secondary DRX group, ZTE, RAN1#100bis-e, April 2020

1. [R1-2001582](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2001582.zip), Draft reply LS on secondary DRX group, ZTE, RAN1#100bis-e, April 2020

1. [R1-2001693](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2001693.zip), Discussion on 2nd DRX group, vivo, RAN1#100bis, April 2020

1. [R1-2001845](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2001845.zip), Discussion on impact of secondary DRX group, MediaTek Inc., RAN1#100bis-e, April 2020

1. [R1-2002056](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2002056.zip), Discussion on the RAN1 impacts on Secondary DRX group, CATT, RAN1#100bis-e, April 2020

1. [R1-2002492](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2002492.zip), Draft LS response on secondary DRX group, Ericsson, RAN1#100bis-e, April 2020

1. [R1-2002493](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2002493.zip), On secondary DRX group, Ericsson, RAN1#100bis-e, April 2020

1. [R1-2002578](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2002578.zip), RAN1 impact analysis due to the introduction of secondary DRX cycle, Huawei, HiSilicon, RAN1#100bis-e, April 2020

1. [R1-2002662](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_100b_e/Docs/R1-2002662.zip), Draft reply LS on secondary DRX cycle, Huawei, HiSilicon, RAN1#100bis-e, April 2020