**3GPP TSG-RAN WG2 Meeting #125 R2-24xxxxx**

**Athens, Greece, 26th February – 1st March, 2024**

Agenda Item: 7.4.1.2

Source: ZTE Corporation, Sanechips

Title: Report of [Post125][513][feMob] 37340 (ZTE)

Document for: Discussion and Decision

# 1 Introduction

This contribution is to address the following email discussion:

* [Post125][513][feMob] 37340 (ZTE)

Scope: Treat and review R2-2400310, R2-2401140, R2-2401170. Include agreeable parts, include additional impact due to meeting progress (if any).

Intended outcome: Agreed 37340 CR

Deadline: Short

The participants are invited to provide their contact information in the following table.

|  |  |
| --- | --- |
| **Company** | **Contact: Name (E-mail)** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# 2 Discussion

[R2-2401140](file:///C:\\Users\\mtk65284\\Documents\\3GPP\\tsg_ran\\WG2_RL2\\RAN2\\Docs\\R2-2401140.zip" \o "C:Usersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2401140.zip) Discussion on S-CPAC and TP for TS 37.340 CMCC

This contribution discussed some corrections on subsequent CPAC:

|  |
| --- |
| **Proposal 1: Capture the autonomous release of subsequent CPAC configuration upon RRC Re-establishment or RRC release in clause 10.20 in TS 37.340.**  **Proposal 2: Capture the following principle in clause 10.20 in TS 37.340.**  **- Upon MCG failure when fast MCG link recovery is configured and the SCG is not deactivated, or upon SCG failure, the UE maintains the stored subsequent CPAC configuration unless the network indicates the UE to release it.** |

The corresponding text proposals for TS 37.340 are shown as follows:

|  |
| --- |
| 10.20 Subsequent Conditional PSCell Addition or Change A Subsequent Conditional PSCell Addition or Change (subsequent CPAC) is defined as a conditional PSCell addition or change procedure that is executed after a PSCell addition, a PSCell change, a PCell change or an SCG release based on pre-configured subsequent CPAC configuration of candidate PSCell(s) without reconfiguration and re-initiation of CPC/CPA. The UE keeps the configured subsequent CPAC configuration (unless the network indicates to release it or the UE autonomously releases it upon RRC re-establishment or RRC release) and evaluates the execution conditions of candidate PSCells after completion of a PSCell addition, a PSCell change, a PCell change or an SCG release. Intra-SN subsequent CPAC initiated by the SN, inter-SN subsequent CPAC initiated by either MN or SN are supported.  ...  - Upon MCG failure when fast MCG link recovery is configured and the SCG is not deactivated, or upon SCG failure, the UE maintains the stored subsequent CPAC configuration unless the network indicates the UE to release it. |

**Rapporteur’s comments:**

For the 1st change in the TP, if companies think the UE autonomous release behaviour should be captured (e.g. the UE shall autonomously remove the subsequent CPAC configuration in SCG *VarConditionalReconfig* upon SCG release), we can consider to capture some general description as below:

|  |
| --- |
| The UE keeps the configured subsequent CPAC configuration (unless the network indicates to release it or the UE autonomously releases it) and evaluates the execution conditions of candidate PSCells after completion of a PSCell addition, a PSCell change, a PCell change or an SCG release. |

For the 2nd change, we understand the motivation, however, the similar UE behaviour is also applicable to the legacy CPAC and it haven’t been captured in the TS 37.340, so, if we intend to add the paragraph for MCG failure for subsequent CPAC, then the similar paragraph should also be added to legacy CPAC section. Considering this is already clear in Stage-3 spec, rapporteur would suggest to not capture it in the stage-2 CR.

**Q1: Do companies agree the proposed changes in R2-2401140?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Agree/Disagree** | **Comments if any** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

[R2-2401470](file:///C:\\Users\\mtk65284\\Documents\\3GPP\\tsg_ran\\WG2_RL2\\RAN2\\Docs\\R2-2401470.zip" \o "C:Usersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2401470.zip) Stage-2 corrections for SCPAC OPPO

The contribution discussed some corrections on subsequent CPAC:

|  |
| --- |
| **[Proposal 1 UE is not required to continue evaluating the execution condition of other candidate PSCell(s) or PCell(s) while executing subsequent CPAC.](#_Toc158278721)**  **[Proposal 2 UE is not required to continue evaluating the execution conditions of other SCPAC candidates when PSCell change/addition, PCell change is triggered.](#_Toc158278722)**  **[Proposal 3 Add NOTE in TS 37340 to declare NW will always guarantee a valid SCPAC config](#_Toc158278723)** |

The corresponding text proposals for TS 37.340 are shown as follows:

|  |
| --- |
| - While executing subsequent CPAC, the UE is not required to continue evaluating the execution condition of other candidate PSCell(s) or PCell(s).  - UE is not required to continue evaluating the execution conditions of other SCPAC candidates when PSCell change/addition, PCell change is triggered.  NOTE: If subsequent CPAC is configured, upon PCell change or PSCell change, the MN/SN may retain the subsequent CPAC configuration or cancel the subsequent CPAC configuration. If the MN/SN maintains the subsequent CPAC configuration, it should provide suitable execution conditions for the evaluation of the subsequent CPAC. |

**Rapporteur’s comments:**

For the 1st and 2nd change, rapporteur thinks it’s fine to capture such principles aligned with the legacy CPAC.

For the 3rd change, rapporteur agrees with the intention, and would suggest to capture it as a general principle in the normative text (covering PCell change, PSCell addition/change and SCG release), instead of a NOTE.

|  |
| --- |
| - If subsequent CPAC is configured, upon PSCell addition, PSCell change, PCell change or SCG release, the network should provide suitable execution conditions for the evaluation of the subsequent CPAC if the network decides to maintain the subsequent CPAC configuration. |

**Q2: Do companies agree the proposed changes in R2-2401470?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Agree/Disagree** | **Comments if any** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

[R2-2400310](file:///C:\\Users\\mtk65284\\Documents\\3GPP\\tsg_ran\\WG2_RL2\\RAN2\\Docs\\R2-2400310.zip" \o "C:Usersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2400310.zip) Miscellaneous corrections for NR further mobility enhancements in TS 37.340 ZTE Corporation, Sanechips

This CR is to address some miscellaneous clarification and editorial changes in the current TS 37.340:

|  |  |
| --- | --- |
| ***Reason for change:*** | To address some miscellaneous clarification/editorial changes:   1. The current definition of subsequent CPAC may cause the ambiguity that the subsequent CPAC includes only the following/subsequent CPC/CPA execution after a PSCell addition/change, PCell change or SCG release, but not including the initial CPA/CPC execution after receiving the subsequent CPAC configuration. 2. The description of intra-SN subsequent CPAC without MN involvement execution completion is missing in the section 10.10.2 for RRC Transfer procedure. 3. Some editorial clarification/changes are required in Figure 10.20-1 and 10.20-2, to align with the procedural text. 4. The current text on MN initiated SN modification procedure during subsequent CPAC procedure in section 10.20 is unclear and may cause some ambiguity. 5. Remove “and when RRC full configuration is not used” in section 10.20, to avoid the ambiguity that RRC full configuration may be used for subsequent CPAC. 6. Some editorial changes needs to be fixed. |
|  |  |
| ***Summary of change:*** | 1. Update the definition of subsequent CPAC in section 3.1 and 10.20. 2. Add the description of intra-SN subsequent CPAC without MN involvement execution completion in the section 10.10.2. 3. Fix some editorial changes in Figure 10.20-1 and 10.20-2. 4. Improve the procedural text on MN initiated SN modification procedure during subsequent CPAC procedure in section 10.20. 5. Remove “and when RRC full configuration is not used” in section 10.20. 6. Fix some editorial changes in section 10.20.   **Impact Analysis**  Impacted 5G architecture options:  NR-DC  Impacted functionality:  Subsequent CPAC  Inter-operability:  1. If the network is implemented according to the CR and the UE is not, there is no inter-operability issue.  2. If the UE is implemented according to the CR and the network is not, there is no inter-operability issue. |

**Rapporteur’s comments:**

This CR is taken as a baseline for the 37.340 CR review. The first change was withdrawn in the draft CR based on the comment received offline. Companies are invited to provide comments in the following table or insert your comments via bubble comment in the draft CR in the ftp folder, if any.

**Q3: Do companies agree the proposed changes in R2-2400310?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Agree/Disagree** | **Comments if any** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

The draft CR for reviewing in the ftp folder also includes the following changes to reflect the conclusion in the RAN3 LS and agreement in this meeting.

|  |  |
| --- | --- |
| ***Reason for change:*** | To reflect the following conclusion/agreement:   * In Rel18 for the same UE, coexistence of subsequent CPAC and legacy CPAC is supported in different candidate SNs, however, coexistence of SCPAC and legacy CPAC in the same candidate SN is not supported. * UE stops evaluating cand cell for which execution condition is not provided (but configurations are kept). |
|  |  |
| ***Summary of change:*** | 1. Add “Coexistence of CPAC and subsequent CPAC for the same candidate SN is not supported” in section 10.1. 2. Add “(if provided for the following execution of subsequent CPAC)” to clarify the evaluation of execution condition after completion of a PSCell addition, a PSCell change, a PCell change or an SCG release in section 10.20. |

If companies have any comments on the new changes or companies identify any other changes missing in the current draft CR, please provide your comments in the following table or insert your comments via bubble comment in the draft CR.

**Q4: Any other comments?**

|  |  |
| --- | --- |
| **Company** | **Comments if any** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# 3 Conclusion

Based on the discussion in the previous sections we propose the following:

# 4 References

[R2-2400310](file:///C:\\Users\\mtk65284\\Documents\\3GPP\\tsg_ran\\WG2_RL2\\RAN2\\Docs\\R2-2400310.zip" \o "C:Usersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2400310.zip) Miscellaneous corrections for NR further mobility enhancements in TS 37.340 ZTE Corporation, Sanechips CR Rel-18 37.340 18.0.0 0381 - F NR\_Mob\_enh2-Core

[R2-2401140](file:///C:\\Users\\mtk65284\\Documents\\3GPP\\tsg_ran\\WG2_RL2\\RAN2\\Docs\\R2-2401140.zip" \o "C:Usersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2401140.zip) Discussion on S-CPAC and TP for TS 37.340 CMCC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2401470](file:///C:\\Users\\mtk65284\\Documents\\3GPP\\tsg_ran\\WG2_RL2\\RAN2\\Docs\\R2-2401470.zip" \o "C:Usersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2401470.zip) Stage-2 corrections for SCPAC OPPO discussion Rel-18 NR\_Mob\_enh2-Core Late