**3GPP T****SG-RAN WG3 Meeting #109-e R3-205482**

**Online, 17th - 28th August 2020**

Agenda Item: 17.1

Source: CMCC

Title: Summary of offline discussion on RAN slicing workplan and TR skeleton

Document for: Approval

# Introduction

This contribution provides email discussion for the following,

**CB: # RANSlicing1-Workplan\_TRSkeleton**

**- check work plan, revise 5442 if needed**

**- split the solution section of TR into “CN-part” and “RAN-part”? (NN)**

**- check the details of TR 38.832 skeleton? revise** [**5**](file:///C%3A%5CUsers%5Cpgodin%5CDesktop%5CphilipDocuments%5Ca_ran3new2%5Cran3109%5Cmeeting%5CCB%20%23%20RANSlicing1-Workplan_TRSkeleton%5CDocs%5CR3-204643.zip)**428 if needed**

(CMCC - moderator)

Summary of offline disc [R3-205482](file:///C%3A%5CUsers%5Cpgodin%5CDesktop%5CphilipDocuments%5Ca_ran3new2%5Cran3109%5Cmeeting%5CCB%20%23%20RANSlicing1-Workplan_TRSkeleton%5CInbox%5CR3-205482.zip) (CMCC,ZTE)

# For the Chairman’s Notes

Propose the following:

Propose to capture the following:

# Discussion

The following contributions are captured in this section,

|  |  |  |
| --- | --- | --- |
| [R3-204838](file:///C%3A%5CUsers%5Cpgodin%5CDesktop%5CphilipDocuments%5Ca_ran3new2%5Cran3109%5Cmeeting%5CCB%20%23%20RANSlicing1-Workplan_TRSkeleton%5CDocs%5CR3-204838.zip) | Framework for Skeleton for Slice Continuity (Nokia, Nokia Shanghai Bell) | discussion |
| [R3-205428](file:///C%3A%5CUsers%5Cpgodin%5CDesktop%5CphilipDocuments%5Ca_ran3new2%5Cran3109%5Cmeeting%5CCB%20%23%20RANSlicing1-Workplan_TRSkeleton%5CDocs%5CR3-205428.zip) | Skeleton for TR 38.832 v0.0.0 (CMCC, ZTE) | draft TR |
| [R3-205442](file:///C%3A%5CUsers%5Cpgodin%5CDesktop%5CphilipDocuments%5Ca_ran3new2%5Cran3109%5Cmeeting%5CCB%20%23%20RANSlicing1-Workplan_TRSkeleton%5CDocs%5CR3-205442.zip) | Work plan for RAN slicing SI (CMCC, ZTE) | Work Plan |

Regarding the work plan, please provide comments in the following table, if any,

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| --- | --- |
| Company | Comment |
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Regarding the TR skeleton, R3-204838 suggests to split the solution section into ‘CN-part Solutions’ and ‘RAN-part Solutions’, and the proposed modification to TR is quoted as follows,

6.2 Description of Solutions

*Editor Note: solution description, solution comparison, conclude the solution for normative work.*

6.2.1 CN-part Solutions

*Editor Note: Capture the solutions which have impact on the end to end slice i.e. impacting the CN part of the slice.*

6.2.2 RAN-part Solutions

*Editor Note: Capture the solutions impacting only the RAN part of the slice.*

**Question: Is it necessary to split the solution section into CN-part and RAN-part?**

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| Company | Yes/No | Comment |
| CMCC | Need clarification | Although we haven’t discussed solutions in detail, in our opinion, the potential solutions that impact RAN will impact CN as well. From our understanding, such proposed split may be related to which part of network (CN or RAN) makes the decision on slicing remapping/fallback.Therefore, whether to split into ‘CN-part solutions’ and ‘RAN-part solutions’ needs more clarification. |
| Nokia | Yes | CN impacting solutions are solutions whereby after the slice re-mapping the CN functions of the PDU session have changed. For example: use of different SMF, UPF or PCF because current ones are not compatible with the new slice; or use of different N3/N9 transport network due to the slice re-mapping. In contrast, in RAN-only solutions the CN functions of the PDU session after the re-mapping are identical. CN impacting solutions would at minimum require new signaling to be defined at SA2 and even enhancement of SSC mode if e.g. UPF changed. In contrast, RAN only solution of slice remapping have no impact to CN part as such, only possible impact is a notification from RAN that the RAN part of the slice changed if this is desired for charging reasons.  |
| Huawei | Yes but until the solutions are clear to some extent | We are generally positive to have this category of potential solutions with RAN related solution and CN related solution, given the fact this is a Study Item, and all potential solutions can be discussed. Also Nokia gives a pretty good explanation above. But we share CMCC’s view that only after the solutions are discussed, e.g. in CB: # RANSlicing3-Slice\_Remapping\_Solutions, the TP can be updated as suggested. So we suggest first discuss potential solutions in CB#3.  |
| Qualcomm | Similar view to CMCC and Huawei | Making this change would imply a clear view of how these components interact, but in our opinion such clear view does not exist across all companies. One option would be to request that solutions address “CN impact” and make clear whether they impact CN in any way (and also explain why not). |
| NEC | Similar view to Qualcomm | we can show for each solution the description on the RAN impact and CN impact. |
| CATT | Similar view with NEC | We cannot clearly categorize the solution to CN part and RAN part so far. Suggest that put all solutions in one bucket.  |
| ZTE | Similar view to CMCC | We can analysis CN impact for each identified solutions later. |
| Samsung | Wait until the solutions are clear. | According to current discussion summary of **CB: # RANSlicing3-Slice\_Remapping\_Solutions**,the potential solutions can be categorized into **preparation of slice re-mapping** (how to get slice re-mapping policy) and **execution of slice re-mapping** (where slice re-mapping takes place) with descriptions of possible impacts on CN. |
| Ericsson | Not necessary | The intention is noble, but the usefulness is doubtful. We need to analyse the best solution for the objective. We do not necessarily need to constrain ourselves with separating solutions in CN based or RAN based. Network slicing is an end to end concept and such separation are not necessarily in line with the flexibility a slice should have in terms of network function selection. We do not see the need of modifying the TP. |

Companies are invited to comment on the above question.

In case of further comments, please indicate in the table. Further discussion on the email reflector is preferred, if needed.

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| --- | --- |
| Company | Comment |
| NEC | In the Scope of the TR Skeleton it is mentioned that: “The present document provides descriptions of use cases and solutions with regard to enhancement of Radio Access Network (RAN) slicing for NR”However, in the description of the objective of the SI [[RP-193254](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_86/Docs/RP-193254.zip)] it is mentioned that:“The study item aims to investigate enhancement on RAN support of network slicing”Therefore the description of the TR scope can be rephrased to:“The present document provides descriptions of use cases and solutions with regard to enhancement of Radio Access Network (RAN) support of network slicing for NR” |
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# Conclusion, Recommendations