**3GPP TSG-RAN WG2#117-e Draft R2-2203637**

**Online, 21 February - 3 March 2022**

**Source:** Samsung

**Title:** [AT117-e][223][DCCA] CPAC procedures from network perspective (Samsung)

**Agenda Item:** 8.2.3.1

**Document for:** Discussion and decision

# 1 Introduction

This document discusses on the remaining issues of CPAC procedure from network perspective based on the Tdocs submitted to 8.2.3.1, with the following information from WI chair:

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| **NR Rel-17 DCCA (started immediately at meeting start)** |

**[AT117-e][223][DCCA] CPAC procedures from network perspective (Samsung)**

|  |
| --- |
| * Scope: Attempt to resolve critical open issues for CPAC procedures from network perspective based on contributions to 8.2.3.1
 |
| * Intended outcome: Discussion report in [R2-2203637](file:///C%3A%5C%5CUsers%5C%5Cterhentt%5C%5CDocuments%5C%5CTdocs%5C%5CRAN2%5C%5CRAN2_117-e%5C%5CR2-220xxxx.zip%22%20%5Ct%20%22_blank).
* NOTE: CR rapporteur (CATT) is allowed to submit updated CRs based on the report proposal to illustrate the impacts of the proposals
 |
| * Deadline: Deadline 3
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| **Deadline 3 (discussions for 2nd week Tue online):** |

* **Comment deadline:** FridayW1, 0800 UTC (for collecting views)
* **Rapporteur proposals:** Friday W1, 0900 UTC (proposed resolution of issues)
* **Document deadline:** Monday W2, 1200 UTC (report or agreed CRs)
* No extensions to this deadline for regular discussions. Discussions handling CRs may continue to short post-meeting email (based on chair decision).

Mainly issues related to the OpenIssueList [12] is first summarized and discussed, and then ones related to running CR are discussed next.

# 2 References

[1] R2-2202304, Discussion on CPAC procedures from NW perspective, RAN2#117-e, Vivo

[2] R2-2202468, Open issues on Rel-17 CPAC procedures from NW perspective, RAN2#117-e, Nokia, Nokia Shanghai Bell

[3] R2-2202577, On support of CPAC replace, RAN2#117-e, Lenovo, Motorola Mobility

[4] R2-2202702, CPAC procedures from network perspective, RAN2#117-e, Qualcomm Incorporated

[5] R2-2202824, Remaining issues on CPAC from NW perspective, RAN2#117-e, ZTE Corporation, Sanechips

[6] R2-2202914, Discussion on the CG-CandidateList, RAN2#117-e, Google

[7] R2-2202916, (Draft CR) Support modification and cancellation of C-PSCells in the CG-CandidateList, RAN2#117-e, Google

[8] R2-2203045, Discussion on support for coexistence of Rel16 and Rel17 CPC, RAN2#117-e, NTT DOCOMO, INC

[9] R2-2203100, Remaining issues on CPAC from NW perspective, RAN2#117-e, CATT

[10] R2-2203170, Remaining issues for CPAC in network perspective, RAN2#117-e, Samsung

[11] R2-2203432, CPAC network procedures, RAN2#117-e, Ericsson

[12] R2-2202029, Open issues for MR DC/CA further enhancements, RAN2#116bis-e, Huawei, HiSilicon

# 3 Discussion

## 2.1 Coexistence of R16 CPC and R17 CPC

One of the representative consideration regarding R17 CPAC is to allow the coexistence between R16 CPC and R17 CPAC.

1. Coexistence of R16/R17 CPC supported?
	1. Y: Vivo, Nokia, ZTE, DOCOMO, Samsung
	2. N: CATT (NW implementation to guarantee that R16 CHO, CPC, Rel17 CPAC are not simultaneously configured)
	3. Partially support: Ericsson (Support for the coexistence between R16 CPC and R17 SI-CPC, but not between R16 and R17 MI-CPC.)

Most of companies support the coexistence of R16 and R17 CPC operation with the reason that better reliability on the connection with the network can be accomplished, which subsequently result in the less latency to recover the connection for pscell once deteriorates. However there is also the consideration on the specification impact for this coexistence compared to the short remaining time given, which is correct. Therefore, we first can start with the majority view on the support of the coexistence, but also can compromise to have partial coexistence.

**Proposal 1: RAN2 determine among no support of the coexistence of R16 and R17 CPC, the support of full coexistence of R16 CPC and R17 CPC, or the support of partial coexistence of Rel-16 and Rel-17 SN-initiated CPC.**

The estimated specification impact is to include UE behaviour on the configuration release upon one type of CPC execution, MN/SN coordination on the maximum number of conditional reconfiguration / conditional Reconfiguration ID assignment, and indication of intra-SN CPC execution to the MN.

1. Configuration release after other type CPC’s execution:
	1. Vivo:
		1. After R16 CPC execution, UE keeps R17 CPC configs if it includes A4/B1 execution conditions and does not depend on source SCG config. Otherwise it’s released.
		2. After R17 CPC execution, UE releases the R16 ones.
	2. ZTE: Upon any type of CPC executed, UE removes all stored CPC configs including R16 and 17.
	3. Samsung: UE releases R17 CPC configurations after successful R16 CPC execution, and vice-versa.

Once any type of co-existence i.e., full support of partial support is agreed, there should be a UE behaviour on CPC config release. The simplest one is that just release of all the stored CPC configs including R16 and R17. Since there is no difference of the supporting company for all three suggestions, rapporteur propose to follow the one that has the minimal specification impact.

**Proposal 2. (On any coexistence case) RAN2 agrees that UE removes all the stored CPC configurations including R16 and R17 CPC upon any type of CPC executed.**

1. MN/SN coordination needed?
	1. Vivo: Needed (intra-SN CPC indication)
		1. For SN to inform MN of the R16 CPC execution when R17 CPC configuration is delta config based on the source PSCell config after R16 CPC execution.
		2. R17 CPC candidate cell configurations are full configuration (which doesn’t need the MN/SN configuration)
	2. Nokia: Needed (intra-SN CPC indication)
		1. MN first informs S-SN about MI-CPC, and then S-SN informs MN when intra-SN CPC is executed and includes new SCG configuration such that MN can use it for re-triggering the preparation of MN-initiated CPC.
		2. LS to R3 on this coordination signalling.
	3. ZTE: Needed (conditional Reconfig ID space assignment, and max # of CPAC)
		1. Conditional reconfiguration ID space to be determined by MN.
		2. The max number of CPAC candidate pscells is 8.
		3. MN and SN coordinates the maximum number of SI-CPC including inter-/and intra-SN CPC. In detail, consider inter node renegotiation procedure where MN indicates the max # of candidate pscell allowed to S-SN, and if S-SN wants more, S-SN can send the requested value to the MN. (with TP)
	4. DOCOMO: Needed (Xn message to carry the max number of
		1. if R16 CPC and R17 SI-CPC are simultaneously configured, S-SN set the max # of pscell to prepare in the SNChangeRequired message (to MN) by taking account of already configured Rel-16 CPC configs not to exceed the maxNrofCondCells. If Rel16 CPC and Rel17 MI-CPC are simultaneously configured, and total # of CPC config exceed the maxNrofCondCells, UE shall prioritize to apply rel-17 CPC config and discard Rel-16 configs.

From Vivo, and Nokia’s proposal, for intra-SN execution indication, it is not necessary for partial coexistence case where only SN can initiate the procedure for R16 CPC and R17 SI-CPC. Therefore, proposal can be split into two:

*Observation 3. (partial co-existence of CPC) RAN2 agree that there is no need of intra-SN execution indication between MN and SN when partial co-existence is agreed.*

**Proposal 3. (full co-existence of CPC) RAN2 agree that there is a need of intra-SN execution indication between MN and SN when full co-existence is agreed.**

From ZTE’s proposal, the max number of CPAC candidate PSCell needs to be defined regardless of the coexistence issue, and first for R17 CPAC itself. Therefore, rapporteur first would like to propose:

**Proposal 4-1. (R17 CPAC itself) RAN2 agree that the maximum number of candidate pscells for R17 CPAC is 8.**

**Proposal 4-2. (On any coexistence case) RAN2 agree that the maximum number of candidate PSCells for R16 CPC and R17 CPAC is 8, if any type of coexistence of R16/17 CPC is agreed.**

Further ZTE’s proposal on MN/SN coordination on conditional Reconfiguration ID space is always needed for any type of coexistence of R16/R17 CPC, i.e. both partial coexistence and full coexistence, because MN handles the condReconfig ID assignment for R17 CPC (including both SI-CPC and MI-CPC) while S-SN handles the assignment for R16 CPC. If without MN/SN coordination, the MN and the SN may set the same condReconfig ID for different candidate PSCells configured via R16 CPC and R17 CPC. In such case, the UE shall mistakenly consider these two different conditional reconfigurations are for the same candidate PSCell and only store one conditional reconfiguration.

**Proposal 5. (On any coexistence case) RAN2 agree that there is a need of MN/SN coordination for conditional reconfiguration ID space when a full or partial co-existence is agreed.**

From ZTE’s proposal, the coordination betweem MN and SN on the maximum number of candidate target PSCells allowed to S-SN is not only for any type of co-existence but also for R17 CPAC itself. The node initiating the configuration procedure can control the number of candidate pscells. MN initiate the procedure for MI-CPC and CPA while SN initiates the procedure SI-CPC. Therefore, there should be the coordination even only for R17 CPAC too.

**Proposal 6-1. (R17 CPAC itself) RAN2 agree that MN and SN coordinates the maximum number of candidate target pscells allowed for S-SN for R17 CPAC itself.**

And partial coex case doesn’t need the coordination between MN and SN since S-SN only initiates R16 CPC and R17 SI-CPC.

*Observation 6-2. (for partial coexistence) RAN2 agree that MN and SN coordination for the maximum number of candidate target pscells allowed for S-SN is not necessary if partial coexistence is agreed.*

For full coex case, still this coordination is necessary since MN initiates CPA and MI-CPC while SN does R16 CPC and SI-CPC.

**Proposal 6-3. (full co-existence of CPC) RAN2 agree that MN and SN coordinates the maximum number of candidate target pscells allowed for S-SN if full coexistence is agreed.**

From DOCOMO’s proposal, it is assumed that there is no distinguished UE capability of maximum number of candidate pscells i.e., unified capability for R16 CPC and R17 SI-CPC or R16 CPC and R17 MI-CPC. Therefore there is a case that sum of the number of candidate pscell configured by SN and MN exceed the given threshold value. However, this issue can be further discussed when above Proposal 6 is once agreed.

1. Intra-SN CPC should be configured in R16 way ?
	1. Yes: Vivo, ZTE (keep legacy independent signalling for each R16/R17 CPC)
	2. No: Ericsson (support for the Intra-SN CPC including updates to the MCG configuration.)

The remaining issue was that there is any need to modify the R17 intra-SN CPC procedure related to the co-existence issue. There are two party to reuse the legacy and modify the intra-SN CPC by including the MCG configuration information. By following the majority view, the rapporteur suggest to follow the majority view that legacy signalling can be used Rel-17 intra-SN CPC procedure.

**Proposal 7. (On any coexistence case) RAN2 agree that R17 intra-SN CPC reuses the legacy R16 CPC procedure.**

##  Coexistence of CHO and CPAC

Even WI rapporteur’s guidance on the submission contents i.e., AI 8.2.3.1 can only have NW perspective and coexistence of R16 and R17 CPC, there are several companies to submit this coexistence of CHO and CPAC issue which were guided to be submitted AI 8.2.3.2. Anyhow, this might further be discussed with **[AT117-e][224][DCCA] CPAC procedures from UE perspective (Nokia).** We can keep this section as a reference to be used later.

1. Coexistence supported ? :
	1. Yes: Vivo, Nokia, QC (implicitly), ZTE
	2. Partially: Ericsson (support for CHO and Rel-17 CPAC but not for CHO and Rel-16 CPC)

If we follow the majority view, support of coexistence of CHO and CPAC seems preferable. However still there is short of time, and if we have any benefit on partial coexistence, then we also have to seek that way. By only allowing the coexistence between CHO and R17 CPAC would be the MN that controls and initiates the procedure for both CHO and R17 CPAC. From this, there would be no additional signalling between MN and SN to share some information during CHO or CPAC procedure. Therefore, rapporteur propose bit compromised way forward as in Proposal 1:

**Proposal 8: RAN2 determine on the coexistence of CHO and CPAC among no support of coexistence, the support of full coexistence of CHO, R16 CPC and R17 CPAC, or the support of partial coexistence of CHO and Rel-17 SN-initiated CPC.**

1. Prioritization over CHO and CPC
	1. Stop/suspending UE behaviour:
		1. Vivo; ZTE: CHO is prioritized, aborts on-going CPAC execution upon CHO execution. Stops condition evaluation for CPAC upon CHO execution. If triggered cells exists for both CHO and CPAC, UE selects one for CHO.
		2. Nokia : N/A
		3. QC: when CHO and CPA are triggered together, CHO is prioritized. Then CPA configs are discarded, and network start the related procedure (receiving HO success message from target MN, and S-MN initiates SN release procedure toward the T-SNs.) Here CPA can be replaced with the CPC with the straightforward modification.

Two companies Vivo and QC prefer to prioritize the CHO over the CPC when both are configured simultaneously. For the UE’s explicit behaviour is whether to stop the condition evaluation or aborts CPAC execution. These operation is regardless of partial coex or full co-ex.

**Proposal 9. (On any coexistence case) RAN2 agree that upon CHO execution, UE performs:**

* **Aborts on-going CPAC execution (including fall-back to the source SCG/MCG configuration, if any)**
* **Stops conditional evaluation for CPAC**
* **CPAC configs are discarded**
	1. Release configuration:
		1. Vivo: Releasing all CPAC configs after CHO successful completion if CPAC config depends on the CHO configs.
		2. Nokia: may release all other conditional reconfig.
		3. QC:
			1. when CPA executed before CHO, Alt1. Discard CHO config, Alt 2. Keeps CHO config but doesn’t measure until receiving updated CHO configs from S-MN, Alt3. If a specific indication (per candidate target pscell in CPA) included in RRCReconfiguration message containing CHO or CPA configuration to keep the CHO config is received, UE keeps CHO configs. Same for CPC with straightforward modification
			2. When CHO executed before CPA, UE discard the CPA configs (UE perspective), S-MN initiates SN release procedures toward the T-SNs upon CHO successfully executed. Same for CPC with straightforward modification
		4. ZTE: Releasing all CPAC configs after CHO successful completion, vice-versa.

If network wants the UE to continue evaluating some of them after CHO/CPAC, network provides those after completed CHO/CPAC. For the simplicity, rapporteur propose to follow the simplest one i.e., Nokia’s.

**Proposal 10. (On any coexistence case) UE may be allowed to delete all other conditional reconfiguration when CHO/CPAC triggers.**

**Proposal 10-1. (On any coexistence case) If the UE does not delete all other conditional reconfiguration when CHO/CPAC triggers, the UE deletes them when one CHO/CPAC is successfully completed.**

## 2.3 Support of NGEN-DC

As indicated in OpenIssueList, threre is FFS point whether to apply CPAC feature to NGEN-DC arthictecture.

CATT propose: R17 CPAC does not apply to NGEN-DC as well as NE-DC architecture, i.e., it only applies to EN-DC and NR-DC architecture.

And Ericsson also propose with TP: CPAC is not supported for NGEN-DC in Rel-17.

Therefore, the corresponding proposal is:

**Proposal 11: (R17 CPAC itself) CPAC is not supported for NGEN-DC in Rel-17.**

## 2.4 Issue related to running CR

The following proposals are related to the running CR. Therefore, we can discuss the proposals one-by-one based on the TPs in their contributions. The related TP is not attached for not making the summary to lengthy. Please refer each corresponding Tdoc including TPs.

From Nokia, with the TP in Annex:

**Proposal 12: (TP) Source SN should always include the CPC execution condition for the suggested PSCell in *SN Change Required* message to MN. The Optional flag is to be removed from *condExecutionConditionSN-r17* in stage 3 CR for NR**.

**Proposal 13: (TP) Capture in stage-2 CR that source SN can update the CPC execution conditions (for the accepted PSCells) after being informed about the accepted candidate PSCells.**

**Proposal 14: (TP) Capture in stage-2 CR that the CPAC configuration may contain MCG and SCG reconfigurations.**

**Proposal 15: (TP) Consider the FFS in stage 2 CR (TS 37.340) on what defines a successful reconfiguration procedure to be already addressed by the current wording (i.e. FFS to be deleted).**

Lenovo&MM and Google propose the same solution for the below issue. CG-CandidateList field was updated to support add/mod/cancle structure of candidate pscell configs in INM from SN to MN

**Proposal 16: (TP) Target SN provides the prepared PSCell configurations in a delta manner (e.g., add/modify/cancel) instead of always providing a full list, as shown in the TP.**

From ZTE, with the TP

**Proposal 17: (TP) RAN2 confirms the new inter-node RRC message that includes the full list of CG-Config(s) is only used from the target SN to the MN, i.e. not used from the source SN to the MN.**

From CATT with TP

**Proposal 18: (TP) The following Editor’s Note for MN initiated CPA in the stage 2 running CR is removed.**

**Editor’s Note: it is FFS how to capture the following agreement: The message carrying ‎conditionalReconfiguration for CPA/CPC is in MN format (i.e. contains ‎both MCG and SCG re-configurations).**

**Proposal 19: (TP)The following Editor’s Note for MN initiated CPA in the stage 2 running CR is removed.**

**Editor’s Note: it is FFS what defines a successful reconfiguration procedure.**

## 2.5 Structure of proposals

|  |  |  |
| --- | --- | --- |
| Proposal # | Purpose | Issue  |
| 4-1, 6-1, 11 | R17 CPAC completeness (not related to any coexistence case) |  |
| 12-19 | Resolving issues on running CRs |  |
| 1 | Co-existence of Rel-16 CPC and R17 CPC | Basic question on determination among support of no-coex, full coex, partial coexistence. |
| NA | Support of no-coex |
| 2, 4-2, 7 | Support of partial coex |
| 2, 3, 4-2, 5, 6-3, 7 | Support of full coex |
| 8 | Co-existence of CHO/CPAC | Basic question on determination among support of no-coex, full coex, partial coexistence. |
| NA | Support of no-coex |
| 9, 10 | Support of partial or full coex |

In this contribution, we summarized the each submitted contributions at AI 8.2.3.1. There are three categories to be considered. Ones for R17 CPAC itself which are not related to coexistence of R16/17 CPC nor to coexistence of CHO/CPAC but just R17 CPAC completeness.

**Proposal 4-1. (R17 CPAC itself) RAN2 agree that the maximum number of candidate pscells for R17 CPAC is 8.**

**Proposal 6-1. (R17 CPAC itself) RAN2 agree that MN and SN coordinates the maximum number of candidate target pscells allowed for S-SN for R17 CPAC itself.**

**Proposal 11: (R17 CPAC itself) CPAC is not supported for NGEN-DC in Rel-17.**

For the proposals regarding running CR, each TP can be referred, and we have the following proposals in this category with mart TP:

**Proposal 12: (TP) Source SN should always include the CPC execution condition for the suggested PSCell in *SN Change Required* message to MN. The Optional flag is to be removed from *condExecutionConditionSN-r17* in stage 3 CR for NR**.

**Proposal 13: (TP) Capture in stage-2 CR that source SN can update the CPC execution conditions (for the accepted PSCells) after being informed about the accepted candidate PSCells.**

**Proposal 14: (TP) Capture in stage-2 CR that the CPAC configuration may contain MCG and SCG reconfigurations.**

**Proposal 15: (TP) Consider the FFS in stage 2 CR (TS 37.340) on what defines a successful reconfiguration procedure to be already addressed by the current wording (i.e. FFS to be deleted).**

**Proposal 16: (TP) Target SN provides the prepared PSCell configurations in a delta manner (e.g., add/modify/cancel) instead of always providing a full list, as shown in the TP.**

**Proposal 17: (TP) RAN2 confirms the new inter-node RRC message that includes the full list of CG-Config(s) is only used from the target SN to the MN, i.e. not used from the source SN to the MN.**

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**Editor’s Note: it is FFS how to capture the following agreement: The message carrying ‎conditionalReconfiguration for CPA/CPC is in MN format (i.e. contains ‎both MCG and SCG re-configurations).**

**Proposal 19: (TP) The following Editor’s Note for MN initiated CPA in the stage 2 running CR is removed.**

**Editor’s Note: it is FFS what defines a successful reconfiguration procedure.**

The remaining is two main issues, coex of R16/17 CPC and coex of CHO/CPAC. For the first of R16/17 coex issues, there should be a base proposal on how to support the coex.

**Proposal 1: RAN2 determine among no support of the coexistence of R16 and R17 CPC, the support of full coexistence of R16 CPC and R17 CPC, or the support of partial coexistence of Rel-16 and Rel-17 SN-initiated CPC.**

This proposal can be further evaluated by the related proposals on each case of no support, full coex or partial coex.

For no support: no proposal to be sought.

For support of partial coexistence, the followings need to be sought:

**Proposal 2. (On any coexistence case) RAN2 agrees that UE removes all the stored CPC configurations including R16 and R17 CPC upon any type of CPC executed.**

**Proposal 4-2. (On any coexistence case) RAN2 agree that the maximum number of candidate PSCells for R16 CPC and R17 CPAC is 8, if any type of coexistence of R16/17 CPC is agreed.**

**Proposal 7. (On any coexistence case) RAN2 agree that R17 intra-SN CPC reuses the legacy R16 CPC procedure.**

For support of full coexistence of R16 and R17 CPC:

**Proposal 2. (On any coexistence case) RAN2 agrees that UE removes all the stored CPC configurations including R16 and R17 CPC upon any type of CPC executed.**

**Proposal 3. (full co-existence of CPC) RAN2 agree that there is a need of intra-SN execution indication between MN and SN when full co-existence is agreed.**

**Proposal 4-2. (On any coexistence case) RAN2 agree that the maximum number of candidate PSCells for R16 CPC and R17 CPAC is 8, if any type of coexistence of R16/17 CPC is agreed.**

**Proposal 5. (full co-existence of CPC) RAN2 agree that there is a need of MN/SN coordination for conditional reconfiguration ID space when a full co-existence is agreed.**

**Proposal 6-3. (full co-existence of CPC) RAN2 agree that MN and SN coordinates the maximum number of candidate target pscells allowed for S-SN if full coexistence is agreed.**

**Proposal 7. (On any coexistence case) RAN2 agree that R17 intra-SN CPC reuses the legacy R16 CPC procedure.**

The remaining coex issue, i.e., coex of CHO/CPAC, there is base proposal as below:

**Proposal 8: RAN2 determine on the coexistence of CHO and CPAC among no support of coexistence, the support of full coexistence of CHO, R16 CPC and R17 CPAC, or the support of partial coexistence of CHO and Rel-17 SN-initiated CPC.**

However, different with former coex case of R16/17 CPC, there is no difference between each coex of CHO/ CPAC on the UE’s perspective. So in any case of any type of coexistence of CHO and CPAC, the following proposals should be agreed:

**Proposal 9. (On any coexistence case) RAN2 agree that upon CHO execution, UE performs:**

* **Aborts on-going CPAC execution**
* **Stops conditional evaluation for CPAC**
* **CPAC configs are discarded**

**Proposal 10. (On any coexistence case) UE may be allowed to delete all other conditional reconfiguration when CHO/CPAC triggers.**

# 4 Conclusions

In this contribution, we summarized the each submitted contributions at AI 8.2.3.1. There are three categories to be considered. Ones for R17 CPAC itself which are not related to coexistence of R16/17 CPC nor to coexistence of CHO/CPAC but just R17 CPAC completeness.

**Proposal 4-1. (R17 CPAC itself) RAN2 agree that the maximum number of candidate pscells for R17 CPAC is 8.**

**Proposal 6-1. (R17 CPAC itself) RAN2 agree that MN and SN coordinates the maximum number of candidate target pscells allowed for S-SN for R17 CPAC itself.**

**Proposal 11: (R17 CPAC itself) CPAC is not supported for NGEN-DC in Rel-17.**

For the proposals regarding running CR, each TP can be referred, and we have the following proposals in this category with mart TP:

**Proposal 12: (TP) Source SN should always include the CPC execution condition for the suggested PSCell in *SN Change Required* message to MN. The Optional flag is to be removed from *condExecutionConditionSN-r17* in stage 3 CR for NR**.

**Proposal 13: (TP) Capture in stage-2 CR that source SN can update the CPC execution conditions (for the accepted PSCells) after being informed about the accepted candidate PSCells.**

**Proposal 14: (TP) Capture in stage-2 CR that the CPAC configuration may contain MCG and SCG reconfigurations.**

**Proposal 15: (TP) Consider the FFS in stage 2 CR (TS 37.340) on what defines a successful reconfiguration procedure to be already addressed by the current wording (i.e. FFS to be deleted).**

**Proposal 16: (TP) Target SN provides the prepared PSCell configurations in a delta manner (e.g., add/modify/cancel) instead of always providing a full list, as shown in the TP.**

**Proposal 17: (TP) RAN2 confirms the new inter-node RRC message that includes the full list of CG-Config(s) is only used from the target SN to the MN, i.e. not used from the source SN to the MN.**

**Proposal 18: (TP) The following Editor’s Note for MN initiated CPA in the stage 2 running CR is removed.**

**Editor’s Note: it is FFS how to capture the following agreement: The message carrying ‎conditionalReconfiguration for CPA/CPC is in MN format (i.e. contains ‎both MCG and SCG re-configurations).**

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**Editor’s Note: it is FFS what defines a successful reconfiguration procedure.**

The remaining is two main issues, coex of R16/17 CPC and coex of CHO/CPAC. For the first of R16/17 coex issues, there should be a base proposal on how to support the coex.

**Proposal 1: RAN2 determine among no support of the coexistence of R16 and R17 CPC, the support of full coexistence of R16 CPC and R17 CPC, or the support of partial coexistence of Rel-16 and Rel-17 SN-initiated CPC.**

This proposal can be further evaluated by the related proposals on each case of no support, full coex or partial coex.

For no support: no proposal to be sought.

For support of partial coexistence, the followings need to be sought:

**Proposal 2. (On any coexistence case) RAN2 agrees that UE removes all the stored CPC configurations including R16 and R17 CPC upon any type of CPC executed.**

**Proposal 4-2. (On any coexistence case) RAN2 agree that the maximum number of candidate PSCells for R16 CPC and R17 CPAC is 8, if any type of coexistence of R16/17 CPC is agreed.**

**Proposal 7. (On any coexistence case) RAN2 agree that R17 intra-SN CPC reuses the legacy R16 CPC procedure.**

For support of full coexistence of R16 and R17 CPC:

**Proposal 2. (On any coexistence case) RAN2 agrees that UE removes all the stored CPC configurations including R16 and R17 CPC upon any type of CPC executed.**

**Proposal 3. (full co-existence of CPC) RAN2 agree that there is a need of intra-SN execution indication between MN and SN when full co-existence is agreed.**

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**Proposal 5. (full co-existence of CPC) RAN2 agree that there is a need of MN/SN coordination for conditional reconfiguration ID space when a full co-existence is agreed.**

**Proposal 6-3. (full co-existence of CPC) RAN2 agree that MN and SN coordinates the maximum number of candidate target pscells allowed for S-SN if full coexistence is agreed.**

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The remaining coex issue, i.e., coex of CHO/CPAC, there is base proposal as below:

**Proposal 8: RAN2 determine on the coexistence of CHO and CPAC among no support of coexistence, the support of full coexistence of CHO, R16 CPC and R17 CPAC, or the support of partial coexistence of CHO and Rel-17 SN-initiated CPC.**

However, different with former coex case of R16/17 CPC, there is no difference between each coex of CHO/ CPAC on the UE’s perspective. So in any case of any type of coexistence of CHO and CPAC, the following proposals should be agreed:

**Proposal 9. (On any coexistence case) RAN2 agree that upon CHO execution, UE performs:**

* **Aborts on-going CPAC execution**
* **Stops conditional evaluation for CPAC**
* **CPAC configs are discarded**

**Proposal 10. (On any coexistence case) UE may be allowed to delete all other conditional reconfiguration when CHO/CPAC triggers.**