3GPP TSG-RAN WG2 Meeting #116 electronic R2-2xxxxxx

Online, November 1-12, 2021

Source: RAN2 Chairman (MediaTek)

Title: Skeleton Notes

# AT-Meeting Email / Offline Discussion List, Main Session

Discussions with Deadline **Schedule 1**:

A **first round** with **Deadline for comments Thursday W1 Nov 4 1200 UTC** to settle scope what is agreeable etc

A Final round with **Final deadline Thursday W2 Nov 11 1200 UTC** to settle details / agree CRs etc.

Additional deadlines check points etc if needed are defined by the Rapporteur. In case some parts of an email discussion need more time, doesn’t converge, need on-line treatment etc Rapporteur please contact chair.

* [AT116-e][000] Organizational Main (Chair)

Scope: Opening and closing of the meeting, Treat AIs 1 & 2, LSes that do not need actions. Anything going beyond other discussions can be raised, for the meeting or Johan’s session.

Deadline: EOM

* [AT116-e][001][NR15] Connection Control (ZTE)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110454](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110454.zip), [R2-2110455](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110455.zip), [R2-2110458](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110458.zip), [R2-2110459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110459.zip), [R2-2109791](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109791.zip), [R2-2110456](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110456.zip), [R2-2110457](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110457.zip), [R2-2110783](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110783.zip), [R2-2110784](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110784.zip), [R2-2110785](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110785.zip), [R2-2110786](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110786.zip), [R2-2109404](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109404.zip), [R2-2109405](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109405.zip), [R2-2109406](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109406.zip)

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][002][NR15] RRC Inter Node Other and LTE (Ericsson)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110460](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110460.zip), [R2-2110461](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110461.zip), [R2-2110462](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110462.zip), [R2-2110463](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110463.zip), [R2-2110696](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110696.zip), [R2-2109370](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109370.zip), [R2-2111182](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111182.zip), [R2-2110022](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110022.zip), [R2-2110796](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110796.zip), [R2-2110939](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110939.zip), [R2-2110942](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110942.zip)

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][003][NR15] UE Capabilities I (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109310](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109310.zip), [R2-2110969](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110969.zip), [R2-2110970](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110970.zip), [R2-2110971](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110971.zip), [R2-2110972](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110972.zip),

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][004][NR16] CPUP split reply LS (CATT)

Scope: Determine agreeable parts in a first phase, if agreeable then agree on reply LS out Treat [R2-2109344](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109344.zip), [R2-2111068](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111068.zip), [R2-2111069](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111069.zip).

Intended outcome: Report, Approved LS out if applicable

Deadline: Friday W1 (Nov 5), CLOSED

* AT116-e][005][NR16] Stage-2 (Nokia)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109535](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109535.zip), [R2-2109952](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109952.zip), [R2-2110732](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110732.zip), [R2-2109459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109459.zip), [R2-2110527](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110527.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][006][NR1516] MAC (Qualcomm)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2111027](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111027.zip) (AI 5.3.2), [R2-2109921](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109921.zip), [R2-2110948](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110948.zip), [R2-2110949](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110949.zip), [R2-2110244](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110244.zip), [R2-2109650](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109650.zip), [R2-2109948](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109948.zip), [R2-2110763](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110763.zip), [R2-2110946](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110946.zip), [R2-2111231](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111231.zip), [R2-2109533](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109533.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][007][NR1516] PDCP (Samsung)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2111027](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111027.zip) (AI 5.3.2), [R2-2109945](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109945.zip), [R2-2109946](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109946.zip), [R2-2109947](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109947.zip), [R2-2110757](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110757.zip), [R2-2110758](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110758.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][008][NR16] Connection Control I (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110879](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110879.zip), [R2-2109314](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109314.zip), [R2-2110626](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110626.zip), [R2-2109864](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109864.zip), [R2-2110421](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110421.zip), [R2-2110423](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110423.zip), [R2-2111173](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111173.zip), [R2-2110631](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110631.zip), [R2-2110632](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110632.zip), [R2-2111080](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111080.zip), [R2-2111070](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111070.zip), [R2-2111071](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111071.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][009][NR16] Connection Control II (Ericsson)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109340](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109340.zip), [R2-2109887](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109887.zip), [R2-2109888](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109888.zip), [R2-2110682](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110682.zip), [R2-2110683](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110683.zip), [R2-2110684](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110684.zip), [R2-2111036](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111036.zip), [R2-2110945](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110945.zip), [R2-2110012](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110012.zip), [R2-2110756](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110756.zip),

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][010][NR16] Connection Control III (vivo)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110523](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110523.zip), [R2-2110524](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110524.zip), [R2-2110525](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110525.zip), [R2-2110526](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110526.zip), [R2-2109346](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109346.zip), [R2-2110685](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110685.zip), [R2-2110686](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110686.zip), [R2-2111037](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111037.zip), [R2-2111200](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111200.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][011][NR16] RRC Measurements Other and LTE (Ericsson)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110982](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110982.zip), [R2-2109445](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109445.zip), [R2-2110579](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110579.zip), [R2-2110580](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110580.zip), [R2-2110697](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110697.zip), [R2-2110794](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110794.zip), [R2-2110878](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110878.zip), [R2-2111079](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111079.zip), [R2-2110725](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110725.zip),

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][012][NR16] UE capabilities I (OPPO)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109331](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109331.zip), [R2-2109395](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109395.zip), [R2-2110563](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110563.zip), [R2-2110633](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110633.zip), [R2-2110023](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110023.zip), [R2-2110024](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110024.zip), [R2-2110420](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110420.zip), [R2-2110231](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110231.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][013][NR16] UE capabilities II (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2111058](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111058.zip), [R2-2110777](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110777.zip), [R2-2110483](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110483.zip), [R2-2110484](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110484.zip), [R2-2110780](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110780.zip), [R2-2110627](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110627.zip), [R2-2110628](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110628.zip), [R2-2110629](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110629.zip), [R2-2110973](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110973.zip),

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][014][NR16] Idle Inactive (CATT)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109369](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109369.zip), [R2-2109580](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109580.zip), [R2-2109581](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109581.zip), [R2-2109774](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109774.zip), [R2-2110405](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110405.zip), [R2-2110406](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110406.zip), [R2-2110407](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110407.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

* [AT116-e][015][feMIMO] (Nokia [lead], Ericsson, vivo)

Scope: On RAN1 LSes [R2-2111214](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111214.zip), [R2-2111246](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111246.zip), [R2-2109326](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109326.zip) and their General and high level consequences. Review impacts to RRC (top down) and R2 work, e.g. general observations, structure, common impacts and impact specific to mTRP and MCBF - Find Easy/Potential Agreements, identify points for online discussion, can also identify and capture open issues, and whether LS out is needed. (Comment: please focus on points that need to be discussed/decided to pave the way for more detailed later discussions).

Intended outcome: Report

Deadline: For online W2 Wednesday

* [AT116-e][016][feMIMO] MAC CE impacts (Samsung)

Scope: Based on [R2-2110962](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110962.zip), [R2-2110035](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110035.zip), RAN LS’s and RAN1 progress. Do an initial review of impacts to MAC (MAC CEs) and related R2 work, collect initial comments, assess maturity and if possible Find Potential Agreements, identify points for online discussion, can also identify open issues.

Intended outcome: Report

Deadline: For online W1 Thursday,

CLOSED

* [AT116-e][017][feMIMO] BFD BFR and Initial Running CRs (Samsung)

Scope: 1) Review the submitted Running CRs in [R2-2110666](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110666.zip) (RRC) and [R2-2110960](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110960.zip) (MAC), collect comments with the goal of endorsement, save comments to be applied to the CRs after this meeting. 2) Treat the proposals in BFD BFR tdocs under AI 8.17.3, identify agreeable points, points for discussion, identify open issues, whether LS out is needed etc.

Intended outcome: Report

Deadline: W2 Wednesday (if rapporteur detects something highly controversial, can also CB to that W1 Thursday).

CLOSED

* [AT116-e][018][NR17] Beam information of PUCCH SCell in PUCCH SCell activation (Huawei)

Scope: Treat R2-2109360, R2-2110486, R2-2110088, R2-2110089, R2-2110487, R2-2110964, R2-211035, R2-2109566, R2-2109569, R2-2109659. Determine agreeable parts, including agreeable Reply LS, Draft CR if applicable.

Intended outcome: Ph1 Report, Ph 2 Approved LS, agreed in principle CR if applicable.

Deadline: Ph 1 Friday W1 (CB Online). Ph2 cancelled, CLOSED

* [AT116-e][019][NR17] TX Diversity(vivo)

Scope: Treat [R2-2109359](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109359.zip), [R2-2109732](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109732.zip), [R2-2109733](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109733.zip), [R2-2111055](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111055.zip), [R2-2111056](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111056.zip) Determine agreeable parts, including CRs, Reply LS if applicable.

Intended outcome: Report, agreed CRs Approved LS, if applicable.

Deadline: Wed W2

* [AT116-e][020][NR17] MIMO-dependent BW class (OPPO)

Scope: Treat [R2-2109354](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109354.zip), [R2-2109393](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109393.zip), [R2-2109394](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109394.zip). Determine agreeable parts, including approved Reply LS.

Intended outcome: Ph1 Report, Ph2 Approved LS out

Deadline: Ph1 Friday W1, Ph2 Wednesday W2

CLOSED

* [AT116-e][021][NR17] Power Class (Qualcomm, China Telecom)

Scope: Treat [R2-2109355](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109355.zip), [R2-2109796](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109796.zip), [R2-2109797](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109797.zip), [R2-2109356](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109356.zip), [R2-2109799](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109799.zip), [R2-2110425](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110425.zip), [R2-2110426](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110426.zip), Determine agreeable parts, including CRs, and reply LS if applicable.

Intended outcome: Report, Agreed or agreed in principle CRs, approved Reply LSes if applicable

Deadline: Wed W2.,Offline approval.

* [AT116-e][022][NR17] Irregular BW (Nokia)

Scope: Treat [R2-2109353](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109353.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109353.zip), [R2-2109353](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109353.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109353.zip), [R2-2109889](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109889.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109889.zip), [R2-2109890](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109890.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109890.zip), [R2-2111153](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2111153.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2111153.zip), [R2-2110787](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2110787.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2110787.zip), [R2-2109794](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109794.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109794.zip), [R2-2109795](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109795.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109795.zip), [R2-2110086](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2110086.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2110086.zip), [R2-2110087](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2110087.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2110087.zip)

Determine agreeable parts, e.g. Reply LS. Identify discussion points for online (if needed).

Intended outcome: Report, ph2: Approved Reply LS

Deadline: Tue W2 (CB online), ph2: EOM (offline only)

* [AT116-e][023][NR17] FR2 UL Gap (Apple)

Scope: Treat [R2-2109358](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109358.zip), [R2-2110076](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110076.zip), R2-2100978, [R2-2109570](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109570.zip), [R2-2109571](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109571.zip)

Determine agreeable parts, Identify discussion points for online (if needed).

Intended outcome: Report, Ph2: Approved LS out (offline)

Deadline: Friday W1 (CB online), Ph2 Wednesday W2

* [AT116-e][024][NR17] BCS4/5 (ZTE)

Scope: Treat [R2-2110387](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110387.zip), [R2-2110512](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110512.zip)

Intended outcome: Report

Deadline: Monday W2 (CB online)

* [AT116-e][025][NR17] UL TX Switching & 100M BW (Huawei)

Scope: Treat [R2-2111059](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111059.zip), [R2-2111060](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111060.zip), [R2-2111061](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111061.zip), [R2-2110424](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110424.zip), [R2-2110974](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110974.zip)

Determine agreeable parts, Identify discussion points for online (if needed).

Intended outcome: Report, if applicable: LS out, endorsed CRs.

Deadline: Thu W2 (CB online Thu W2 if needed)

* [AT116-e][026][NR17] DSS (Ericsson)

Scope: Treat [R2-2109332](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109332.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109332.zip), [R2-2110731](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2110731.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2110731.zip), [R2-2110729](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2110729.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2110729.zip), [R2-2109953](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109953.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109953.zip), [R2-2111025](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2111025.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2111025.zip), [R2-2110507](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2110507.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2110507.zip), R2-21000730.

Collect a round of comments, Identify potentially easy agreements, identify discussion points for online.

Intended outcome: Report, ph2 endorsed stage-2 CR

Deadline: Monday W1 (online), ph2: EOM (offline only)

* [AT116-e][027][IoT-NTN] Non-continuous coverage (Mediatek)

Scope: Ph1 Treat documents under 9.2.2. Identify easy agreements, potential agreements (need discussion), potential alternatives, blocking points, Open issues (Note should only capture Open Issues that must be resolved in the end). Pave the way for on-line Discussion.

Intended outcome: Report

Deadline: Ph1 Monday W2

* [AT116-e][028][IoT-NTN] User Plane Impact (OPPO)

Scope: Ph1 Treat documents under 9.2.3. Identify easy agreements, potential agreements (need discussion), potential alternatives, blocking points, Open issues (Note should only capture Open Issues that must be resolved in the end). Pave the way for on-line Discussion.

Intended outcome: Report

Deadline: Ph1 Monday W2

* [AT116-e][029][IoT-NTN] CP Idle mode Cell and TA related (Ericsson)

Scope: Ph1 Treat documents under 9.2.4, Related to Idle mode mobility, paging and Handling of Cell deployments and TA. Identify easy agreements, potential agreements (need discussion), potential alternatives, blocking points, Open issues. Pave the way for on-line Discussion.

Intended outcome: Report

Deadline: Ph1 Monday W2

* [AT116-e][030][IoT-NTN] CP Other (Huawei)

Scope: Ph1 Treat documents under 9.2.4, Related to RRC, related to provisioning of ephemeris, connected mode, connection setup/release, i.e. docs listed under Other below. Identify easy agreements, potential agreements (need discussion), potential alternatives, blocking points, Open issues. Pave the way for on-line Discussion.

Intended outcome: Report

Deadline: Ph1 Monday W2

* [AT116-e][031][eIAB] MAC: LCG extension and BSR (Samsung)

Scope: Progress MAC: LCG extension and BSR (preemtive) based on contributions to this meeting. Identify agreements, discussion points, can also capture open issues. Attempt to close open issues.

Intended outcome: Report

Deadline: Tuesday W2 (online CB),

CLOSED

* [AT116-e][032][eIAB] RLF indications (LGE)

Scope: Progress Type-2/3 RLF indications and related functionality, based on contributions to this meeting. Identify agreements, discussion points, can also capture open issues. Attempt to close open issues. ph2: Attempt offline agreement of remaining agreeable proposals

Intended outcome: Report, ph2: Agreements

Deadline: Tuesday W2 (online CB), ph2 EOM (offline only)

* [AT116-e][033][eIAB] CP-UP separation (vivo)

Scope: Progress impact of CP-UP separation, based on contributions to this meeting. Identify agreements, discussion points, can also capture open issues. Attempt to close open issues.

Intended outcome: Report

Deadline: Tuesday W2 (online CB),

CLOSED

* [AT116-e][034][ePowSav] UE assistance for CN subgroups (CMCC)

Scope: Collect comments for the topic of UE assistance for CN subgroups. Make progress if possible, Identify agreements, and potential discussion points. CB online

Intended outcome: Report with Agreements

Deadline: Wednesday W2 (Online CB)

* [AT116-e][035][ePowSav] TRS CSI-RS for RRC-IDLE and RRC-INACTIVE (Apple)

Scope: Progress the topics of TRS CSI-RS for RRC-IDLE and RRC-INACTIVE based on contributions to this meeting. Identify agreements, and potential discussion points. Converge as much as possible offline. Cb Online if needed.

Intended outcome: Report with Agreements

Deadline: Wednesday W2 (Online CB if needed)

* [AT116-e][036][ePowSav] RLM/BFD relaxation (XIaomi)

Scope: Progress the topics of RLM/BFD relaxation based on contributions to this meeting. Identify agreements, and potential discussion points. Converge as much as possible offline. Cb Online if needed.

Intended outcome: Report with Agreements

Deadline: Wednesday W2 (Online CB if needed)

* [AT116-e][037][NR15] Simultaneous Rx/Tx UE capability per band pair (NTT DOCOMO)

Scope: Based on [R2-2110565](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110565.zip) and on-line agreements, progress discussion on MR-DC, CR approval, LS out

Intended outcome: Report, Agreed CRs, Approved LS

Finish Deadline: Thursday Week2 (intermediate deadlines by Rapporteur) Online CB not expected but possible if Needed

* [AT116-e][038][TEI17] Add the missing HSDN UE capability for LTE (CMCC)

Scope: CR approval based on revised [R2-2110236](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110236.zip) and [R2-2110236](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110236.zip). Take comments into account and allow a final check.

Intended outcome: Agreed CRs

Finish Deadline: Friday W1, CLOSED

* [AT116-e][039][TEI17] PO determination in RRC\_INACTIVE (ZTE)

Scope: Treat [R2-2110464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110464.zip), [R2-2110464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110464.zip), Collect comments determine what is agreeable. If agreeable, make R17 CRs

Intended outcome: Report, Agreed-in-principle CRs

Finish Deadline: Wednesday W2 (NO CB)

* [AT116-e][040][MGE] Pre-Configured MG (Intel)

Scope: Progress the pre-configured MG objective, Identify agreements, potential agreements, open issues and related LS questions to ask RAN4, can consider partial TP if suitable.

Intended outcome: Report, Draft LS

Deadline: Monday W2

* [AT116-e][041][MGE] Concurrent MG (MediaTek)

Scope: Progress the pre-configured MG objective, Identify agreements, potential agreements, open issues and related LS questions to ask RAN4, can consider partial TP if suitable.

Intended outcome: Report, Draft LS

Deadline: Monday W2

* [AT116-e][042][eQOE] Configuration and reporting (Ericsson)

Scope: Items: MeasConfigAppLayerId handling e.g. provided to/from application?, Segmentation further details e.g. can it be mandatory, if not, indicate to application?,

Whether application need to inform AS session start stop,

RRC handling at Resume, Handover etc, delta config and fullconfig, can use R2-2108967 as baseline for discussion.

PH2: P7: Discuss whether RAN2 intends to fulfil the SA4 requirements related to mobility. Chair: LS out (on topics of this Agenda item) + Discuss in detail what are the mobility cases, what is the expected AS behaviour. Can limit to Uu part. Can discuss whethter we need further clarifications by LS,

Intended outcome: Report, RRC TP for agreeable parts. PH2: Report with agreements, Approved LS out

Deadline: Tuesday W2, PH2: EOM (offline)

* [AT116-e][043][eQOE] QoE report handling at QoE pause (Huawei)

Scope: Reply to SA4s questions

Intended outcome: Report, TP for LS out.

Deadline: Tuesday W2 (CB online only if not possible to agree offline)

CLOSED

* [AT116-e][044][eQOE] RAN visible QoE (Qualcomm)

Scope: Review RAN3 LS on RVQoE, proposals in [R2-2111191](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111191.zip), collect comments identify work and expectations in RAN2 (and issues if any), Can also collect comments and attempt a first convergence on some technical proposals, e.g. as in [R2-2109568](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109568.zip) [R2-2110607](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110607.zip) and other documents (rapporteur can select detail questions e,g, top down).

Intended outcome: Report, TP for LS out.

Deadline: Tuesday W2

* [AT116-e][045][ePowSav] Paging Subgrouping (Xiaomi)

Scope: a) based on [R2-2109647](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109647.zip), taking into account agreements above, for remaining proposals, collect one round of comments, attempt agreement offline,

b) determine what configuration info need to broadcasted by gNB.

Intended outcome: Report

Deadline: Wed W2

* [AT116-e][046][ePowSav] Paging Early Indication (Ericsson)

Scope: Address PEI proposals submitted to this meeting (pl select top down the most important proposals) collect comments, and identify agreeable proposals.

Intended outcome: Report

Deadline: Wed W2

* [AT116-e][047][eIAB] Routing and re-routing continued (Huawei)

Scope: Attempt offline agreement of remaining proposals in [R2-2111266](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111266.zip).

Intended outcome: Report

Deadline: Tuesday W2

* [AT116-e][048][NR17] RRC SetModifyRelease (Ericsson)

Scope: Review [R2-2110778](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110778.zip), [R2-2110779](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110779.zip), collect comments.

Intended outcome: Report

Deadline: EOM

* [AT116-e][049][TEI17] TEI17 NR proposals (Chairman)

Scope: Collect comments on selected NR TEI17 proposals

Intended outcome: Report

Deadline: Tuesday W2

CLOSED

* [AT116-e][050][MBS] UP continuation (Lenovo)

Scope: Treat remaining less controversial proposals from R2-2110319. Attempt offline agreements

Intended outcome: Report

Deadline: Tuesday W2

* [AT116-e][051][MBS] CP continuation (Huawei)

Scope: Treat remaining less controversial proposals from [R2-2110604](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110604.zip). Attempt offline agreements, ph2 LS out resulting from first phase.

Intended outcome: Report, ph2 Approved LS out to R1

Deadline: Tuesday W2, ph2 EOM (offline only)

* [AT116-e][052][MBS] Reply LS with Freq Info in USD (Huawei)

Scope: Reply LS (reply to LS in R2-2111244) including Frequency Info in USD according to online discussion

Intended outcome: Agreeable LS out (approved if possible, otherwise online CB)

Deadline: Tuesday W2

CLOSED

* [AT116-e][053][NR17] MINT (Ericsson)

Scope: Take into account on-line agreements, take into account also LS in R2-2109818 and tdocs submitted. Determine TS impacts, arrive at agreeable CR and Reply LS out.

Intended outcome: Report, Endorsed Draft CRs to 38304 38331, and Approved LS out. It is assumed this can be done offline.

Deadline: EOM

# 1 Opening of the meeting

**This e-Meeting**

- This e-Meeting follows 3GPP principles for e-Meetings.

- RAN2 116 electronic has full decision power, i.e. full decision power to make agreements and approvals according to RAN WG2 terms of reference, without any need to ratify decisions at a later RAN2 or other meeting. .

## 1.1 Call for IPR

|  |
| --- |
| The attention of the delegates of this Working Group is drawn to the fact that **3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners **to inform their respective Organizational Partners of Essential IPRs** they become aware of.  The delegates were asked to take note that they were hereby invited:   * to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP. * to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (https://www.etsi.org/images/files/IPR/etsi-ipr-form.doc) |

NOTE: IPRs may be declared to the Director-General or Chairman of the SDO, but not to the RAN WG2 Chairman.

## 1.2 Network usage conditions

1/ To avoid email system overload, please don’t attach files and documents to emails e.g. for offline email discussions, but instead use files placed on the ftp server instead. Inbox/Drafts folder is used for AT-meeting offline discussions.

## 1.3 Other

|  |
| --- |
| In accordance with the Working Procedures it is reaffirmed that:  (i) compliance with all applicable antitrust and competition laws is required;  (ii) timely submissions of work items in advance of TSG or WG meetings are important to allow for full and fair consideration of such matters; and  (iii) the chairman will conduct the meeting with strict impartiality and in the interests of 3GPP |

Note on (i): In case of question please contact your legal counsel.

Note on (ii): WIDs don’t need to be submitted to the RAN2 meeting and will typically not be discussed here either.

# 2 General

## 2.1 Approval of the agenda

[R2-2109300](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109300.zip) Agenda for RAN2#116-e Chairman agenda Late

[000] Proposed Approved

## 2.2 Approval of the report of the previous meeting

[R2-2109301](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109301.zip) RAN2#115-e Meeting Report MCC report Late

[000] Proposed Approved

## 2.3 Reporting from other meetings

### 2.3.1 TSG RAN 93e

Breif RAN2 centric Report from TSG RAN 93e:

0) RAN2 Status Report in RP-211610 received no comments.

1) RAN time plan in RP-212587 was endorsed.

2) Endorsed Multi-WG TU plan is now in RP-212638.

3) n77: Complete set of CRs were approved.

4) R2 Scope related R17:

IoT NTN: An LS was sent to SA asking about NAS support for discontinuous coverage and WUS. Understanding that RAN work on discontinuous coverage shall continue for now (also WUS work if any is needed).

eIAB: lower priority for part of topology-wide fairness and multi-hop latency objectives, see also AI 8.4.

SDT: WID scope updated to align with status in R2, see WID update.

Power Saving: Paging Related - PDCCH based PEI agreed and R3 work clarified, meaning no need to change R2 scope

SL Relay: WID clarifications on 5G ProSe Discovery, see WID update.

See also other R17 WID updates for indirect impacts.

## 2.4 Others

RRC parameters

- RAN1 is expected to deliver RRC parameters list from Oct and Nov meetings.

- In general and as usual, RRC parameters specified by other groups will be taken into account in WI-specific CRs developed in the WI-specific sessions.

UE capabilities

- RAN1 is expected to deliver UE feature list from Nov meeting.

- For non-RAN1-centric topics, and in particular for major WIs it is recommended to start UE capabilities discussions in RAN2 at R2 116-e.

Rapporteur Changes

**Spec Former rapporteur Proposed new rapporteur**

36.306 Ravi Kuchibhotla (Motorola Mobility)      Hyung-Nam Choi (Motorola Mobility)

38.340 Cao Zhenzhen (Huawei) Shi Yulong (Huawei)

[000] Both Rapporteur Changes above are proposed Approved.

# 3 Incoming liaisons

Note: LSs are moved to the respective agenda items if any.

[R2-2109309](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109309.zip) LS on Guidelines on Port Allocation for New 3GPP Interfaces (C4-214848; contact: Huawei) CT4 LS in Rel-17 FS\_PortAl To:RAN2, RAN3, SA4, CT3, SA5 Cc:SA, CT, RAN, SA2

Proposed noted [000]

[R2-2110295](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110295.zip) Location Services: Drones (LI(21)P58020r1; contact: ETSI) ETSI TC LI LS in To:RAN2 Cc:SA3-LI

DISCUSSION

- Ericsson think that our positioning procedures can be used and produce sufficient performance. We didn't evaluate positioning performance in the LTE study.

- QC hasn’t checked. Need some time. Maybe R18?

- Rogers think there are e.g. conditional licence, where the condition is to be able to locate. This is a regulatory req. FCC will make a ruling.

- Huawei would need to check. Possibly this can work by implementation and there is nothing to do. How do add new requirements, in SA1?

- CATT think this is a new POS requirement.

- Vodafone think this is not necessarily so problematic.

- Nokia think that if LPP is supported there is no principal issue. Is this for a case when LPP is not supported.

- Ericsson agrees with Nokia and think multiple Pos methods can be used for high assurance.

- Chair: Cannot take action now. Recommend Plenary decision for taking concrete action.

* Noted

# 4 EUTRA corrections Rel-15 and earlier

Only essential corrections. No documents should be submitted to 4. Please submit to 4.x

## 4.1 NB-IoT corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.2.

[R2-2110471](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110471.zip) Correction to NB-IoT measurements Huawei, HiSilicon CR Rel-16 36.300 16.6.0 1348 - F NB\_IOT-Core, TEI16

## 4.2 eMTC corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.1.

[R2-2109514](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109514.zip) Summary of discussion on missing scheduling restrictions of positioning SI messages for eMTC Lenovo, Motorola Mobility discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-2109515](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109515.zip) Addition of scheduling restrictions of positioning SI messages for eMTC Lenovo, Motorola Mobility CR Rel-15 36.331 15.15.0 4691 - F LCS\_LTE\_acc\_enh-Core R2-2107261

[R2-2109516](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109516.zip) Addition of scheduling restrictions of positioning SI messages for eMTC Lenovo, Motorola Mobility CR Rel-16 36.331 16.6.0 4692 - A LCS\_LTE\_acc\_enh-Core R2-2107262

## 4.3 V2X and Sidelink corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session.

## 4.4 Positioning corrections Rel-15 and earlier

Documents in this agenda item will be handled by email. No web conference is planned for this agenda item.

## 4.5 Other LTE corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session.

Purely editorial corrections should be avoided, text enhancements may be deprioritized. Corrections should be taken up with the specification editor before submitting to avoid CR duplication. If this is not done, the contribution may not be treated.

[R2-2109828](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109828.zip) Addition of missing TEI15 features Lenovo, Motorola Mobility (Rapporteur) CR Rel-15 36.306 15.10.0 1825 - F TEI15

[R2-2109829](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109829.zip) Addition of missing TEI15 features and other corrections Lenovo, Motorola Mobility (Rapporteur) CR Rel-16 36.306 16.6.0 1826 - F TEI15, 5G\_V2X\_NRSL-Core, LTE\_NR\_DC\_CA\_enh-Core

[R2-2109830](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109830.zip) Corrections to HSDN cell reselection enhancement Lenovo, Motorola Mobility CR Rel-15 36.331 15.15.0 4726 - F TEI15

[R2-2109831](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109831.zip) Corrections to HSDN cell reselection enhancement Lenovo, Motorola Mobility CR Rel-16 36.331 16.6.0 4727 - A TEI15

[R2-2111148](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111148.zip) Correction to application layer measurement and reporting Google Inc. CR Rel-15 36.331 15.15.0 4746 - F LTE\_QMC\_Streaming-Core

[R2-2111149](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111149.zip) Correction to application layer measurement and reporting Google Inc. CR Rel-16 36.331 16.6.0 4747 - A LTE\_QMC\_Streaming-Core

# 5 Rel-15 WI: New Radio (NR) Access Technology

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 19: WID: RP-191971)

Only essential corrections. Please submit CRs marked “NR\_newRAT-Core, TEI16” under one of the below clauses.

## 5.1 Organisational

Incoming LSs, etc.

## 5.2 Stage 2 corrections

You should discuss your stage 2 CRs with the specification rapporteurs before submission.

### 5.2.1 TS 3x.300

### 5.2.2 TS 37.340

## 5.3 User Plane corrections

### 5.3.1 MAC

Treated with 6.1.3.1

[R2-2109457](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109457.zip) Correction to SR procedure with UL skipping Qualcomm Incorporated CR Rel-15 38.321 15.12.0 1165 - F NR\_newRAT-Core

[R2-2109458](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109458.zip) Correction to SR procedure with UL skipping Qualcomm Incorporated CR Rel-16 38.321 16.6.0 1166 - F NR\_newRAT-Core

### 5.3.2 RLC PDCP SDAP

Treated with 6.1.3.3

[R2-2111027](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111027.zip) On association between RLC entities and PDCP entity Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

* [007] R2-2111027 is not pursued.

## 5.4 Control Plane corrections

### 5.4.1 NR RRC

#### 5.4.1.1 Connection control

Including L1 Parameters, L2 Parameters, Connection establishment and release, Connection reconfiguration (also reconfig with sync, Handover), Connection resume and release with RRC\_INACTIVE state, Security procedures, re-establishment, RRC processing delay requirements etc.)

Including outcome of [Post115-e][054][NR15] Common Fields Dedicated Signalling (Ericsson)

Common Configuration

Treat Online

[R2-2110701](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110701.zip) [Post115-e][054][NR15] Common Fields Dedicated Signalling (Ericsson) Ericsson discussion Rel-15 NR\_newRAT-Core Late

DISCUSSION

P2

- QC think there are cases that the network need to omit. See the QC paper below.

- Ericsson wonder if we shall capture all the cases explicitly in the TS. Huawei also think this need to be discussed case by case. Think P2 can be agreed as a principle and then in addition we can discussion exceptions.

- ZTE think ratematching field may be problematic, think for this case the common branch should have been dummified and there is no use case for it.

- QC think then that we need to change RRC TS. This is not the principle in current RRC.

- Intel think most companies support P2. Suggest that P2 can be agreed it we manage to address P3 sufficiently.

P3

- QC doesn’t want to disclose implementation. Think this is difficult to analyse. ZTE think that For Ratematcing and PDCCHTCI state paramters it says on the CR coversheet that gNB shall check UE cap.

- Xiaomi also think it is difficult to analyse everything agrees with QC way. QC think we otherwise need to specify what the UE does when UE disregards the parameter.

P6

- ZTE think we can agree this.

- QC think there are problematic cases. Intel think we already have a similar statement for IEs in SIB, think they can be need R.

- CATT think we need to apply this proposal from a certain release.

- Chair wonder if the future is R17. Ericsson think that if we make additions to R16 we could consider it but no change to existing.

- Huawei think we don't need the last line. Intel think we can remove the work only.

P7

- QC think SUL is an example, have not found any other example.

- Huawei think we can discuss case by case based on contributions, has not identified issue with SUL.

* For dedicatedSIB1-Delivery, it is clear from 38.331 procedural text that the UE treat SIB1 as if it was received on BCCH. No clarification is needed.
* It is recommended that optional fields added to ServingCellConfigCommon and ServingCellConfigCommonSIB (including their child IEs) be marked as “Need R” or “Need N” (not as “Need M”) but need careful review in case the IE is also included in ServingCellConfig. To minimize such problems, RAN2 should add those parameters to “xxxCommon” IEs that are needed for initial access.

[R2-2110513](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110513.zip) Consideration for ServingCellConfigCommon Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

DISCUSSION

P1

- Huawei think this isn’t acceptable as this would be problematic for networks. CATT agrees. Think we can fix issues case by case.

- Chair wonder if we have IOT issues.

- Chair think we can just say we don’t change R15

P2

- ZTE think we may need to specify what disregards mean, will UE store or not?

- QC think that all relevant R16 fields are per UE cap and are non problematic.

- Huawei are ok with QC P2.

- Intel agrees with this proposa as a general way and then case by case evaluate whether something more is needed.

* For R15 we don’t change the TS by a general statement. If there are interoperability issues they can be handled case by case.
* Adopt the following principles for release-16 IE/fields under *ServingCellConfigCommon*.

The network does not have to adjust configurations by release-16 fields in *ServingCellConfigCommon* to match the UE capability.

The UE disregards a configuration it does not support or does not comprehend.

* [AT116-e][001][NR15] Connection Control (ZTE)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110454](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110454.zip), [R2-2110455](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110455.zip), [R2-2110458](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110458.zip), [R2-2110459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110459.zip), [R2-2109791](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109791.zip), [R2-2110456](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110456.zip), [R2-2110457](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110457.zip), [R2-2110783](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110783.zip), [R2-2110784](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110784.zip), [R2-2110785](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110785.zip), [R2-2110786](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110786.zip), [R2-2109404](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109404.zip), [R2-2109405](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109405.zip), [R2-2109406](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109406.zip)

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

L1 Parameters

[R2-2110454](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110454.zip) Correction on BWP switch for TDD ZTE Corporation, Sanechips, Ericsson CR Rel-15 38.300 15.13.0 0393 - F NR\_newRAT-Core

[R2-2110455](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110455.zip) Correction on BWP switch for TDD(R16) ZTE Corporation, Sanechips, Ericsson CR Rel-16 38.300 16.7.0 0394 - A NR\_newRAT-Core

* [001] Both not pursued

[R2-2110458](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110458.zip) Correction on vrb-ToPRB-Interleaver ZTE Corporation, Sanechips CR Rel-15 38.331 15.15.0 2832 - F NR\_newRAT-Core

* [001] Not pursued

[R2-2110459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110459.zip) Correction on vrb-ToPRB-Interleaver(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.6.0 2833 - A NR\_newRAT-Core

- [001] Rap: The following is agreeable and is merged with Rapporteur CR: Delete the following pdescription of the field vrb-ToPRB-Interleaver in 38331-g60:“The field vrb-ToPRB-Interleaver applies to DCI format 1\_1, and the field vrb-ToPRB-InterleaverDCI-1-2 applies to DCI format 1\_2 (see TS 38.211 [16], clause 7.3.1.6).”

* [001] Partially merged, one change moved to Rapporteur CR

[R2-2109791](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109791.zip) Delta signalling of dedicated channel bandwidth Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

* [001] Noted
* [001] RAN2 understanding that The fields downlinkChannelBW-PerSCS-List and uplinkChannelBW-PerSCS-List are treated as "Need R" field for the purpose of delta signalling (based on the "Need S" field description). No TS update is required
* [001] RAN2 understanding is that re-signalling the field downlinkChannelBW-PerSCS-List or uplinkChannelBW-PerSCS-List with the same values as before should not cause UP interruption. No TS update is required.

Full Configuration

[R2-2110456](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110456.zip) Correction on srb-ToAddModList ZTE Corporation, Sanechips CR Rel-15 38.331 15.15.0 2830 - F NR\_newRAT-Core

[R2-2110457](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110457.zip) Correction on srb-ToAddModList(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.6.0 2831 - A NR\_newRAT-Core

* [001] Both not pursued

UE Assistance Indication

[R2-2110785](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110785.zip) UAI retransmission upon RRC reconfiguration (38.331) Ericsson CR Rel-16 38.331 16.6.0 2847 - A NR\_newRAT-Core

[R2-2110786](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110786.zip) UAI retransmission upon RRC reconfiguration (38.331) Ericsson CR Rel-15 38.331 15.15.0 2848 - F NR\_newRAT-Core

* [001] Both not pursued

[R2-2110783](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110783.zip) UAI retransmission upon RRC reconfiguration (36.331) Ericsson CR Rel-16 36.331 16.6.0 4738 - A NR\_newRAT-Core

[R2-2110784](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110784.zip) UAI retransmission upon RRC reconfiguration (36.331) Ericsson CR Rel-15 36.331 15.15.0 4739 - F NR\_newRAT-Core

* [001] Both not pursued

RRC Inactive

[R2-2109404](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109404.zip) Discussion on T302 OPPO discussion NR\_newRAT-Core

* [001] Noted, not agreed

[R2-2109405](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109405.zip) Corrections on T302 OPPO CR Rel-15 38.331 15.15.0 2812 - A NR\_newRAT-Core

[R2-2109406](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109406.zip) Corrections on T302(R16) OPPO CR Rel-16 38.331 16.6.0 2813 - F NR\_newRAT-Core

* [001] Both not pursued
* [AT116-e][002][NR15] RRC Inter Node Other and LTE (Ericsson)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110460](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110460.zip), [R2-2110461](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110461.zip), [R2-2110462](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110462.zip), [R2-2110463](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110463.zip), [R2-2110696](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110696.zip), [R2-2109370](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109370.zip), [R2-2111182](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111182.zip), [R2-2110022](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110022.zip), [R2-2110796](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110796.zip), [R2-2110939](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110939.zip), [R2-2110942](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110942.zip)

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

#### 5.4.1.2 Inter-Node RRC messages

[R2-2110460](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110460.zip) Correction on reestablishmentInfo ZTE Corporation, Sanechips CR Rel-15 38.331 15.15.0 2834 - F NR\_newRAT-Core

[R2-2110461](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110461.zip) Correction on reestablishmentInfo(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.6.0 2835 - A NR\_newRAT-Core

[R2-2110462](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110462.zip) Correction on reestablishmentInfo ZTE Corporation, Sanechips CR Rel-15 36.331 15.15.0 4732 - F LTE\_5GCN\_connect-Core

[R2-2110463](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110463.zip) Correction on reestablishmentInfo(R16) ZTE Corporation, Sanechips CR Rel-16 36.331 16.6.0 4733 - A LTE\_5GCN\_connect-Core

#### 5.4.1.3 Other

Including e.g. System Information, RRM and Measurements

Rapporteur CR

[R2-2110696](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110696.zip) Miscellaneous non-controversial corrections Set XII Ericsson CR Rel-15 38.331 15.15.0 2843 - F NR\_newRAT-Core

Not Treated Editorial

It is up to the rapporteur whether to include this in the Rapporteur CR or not.

Chair: for editorials please contact TS rapporteur directly instead of submitting tdocs.

[R2-2110250](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110250.zip) Corrections on the configuration of serving cells NEC CR Rel-15 38.331 15.15.0 2824 - F NR\_newRAT-Core

[R2-2110251](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110251.zip) Corrections on the configuration of serving cells NEC CR Rel-16 38.331 16.6.0 2825 - F NR\_newRAT-Core, TEI16

Measurements

[R2-2109370](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109370.zip) Association between serving cell and measurement object (R5-215762; contact: HiSilicon) RAN5 LS in Rel-15 5GS\_NR\_LTE-UEConTest To:RAN2

Moved from 3

[R2-2111182](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111182.zip) Discussion on association between serving cell and measurement object MediaTek Inc. discussion Rel-15

R2-2111265   Discussion on servingCellMO        Huawei, HiSilicon     discussion    Rel-15

[R2-2110022](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110022.zip) L3 Filtering (filterCoefficient) Clarification Apple, Ericsson discussion Rel-16 NR\_newRAT-Core, TEI16

Moved from 6.1.4.1.2

[R2-2110796](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110796.zip) Draft LS to RAN4 on L3 filter configuration Apple, Ericsson LS out Rel-16 NR\_newRAT-Core, TEI16 To:RAN4

Moved from 6.1.4.1.2

Not Treated

*Moved from 6.1.4.1.2. Chair: There is no issue. R4 isn’t required to specify requirements for all configurations, and R2 doesn't indicate in specifications whether there are UE requirements or not.*

[R2-2109885](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109885.zip) Clarification on density configuration in CSI-RS based measurement ZTE Corporation, Sanechips discussion Rel-16 NR\_newRAT-Core

[R2-2109886](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109886.zip) LS to RAN4 on density configuration in CSI-RS based measurement ZTE Corporation, Sanechips LS out Rel-16 NR\_newRAT-Core To:RAN4

### 5.4.2 LTE changes

LTE specific changes for this WI. Changes that are applied to both LTE and NR shall be treated together under respective Agenda item other than this one.

[R2-2110939](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110939.zip) Correction to nas-Container Sequans Communications CR Rel-15 36.331 15.15.0 4741 - F NR\_newRAT-Core, LTE\_5GCN\_connect-Core

[R2-2110942](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110942.zip) Correction to nas-Container Sequans Communications CR Rel-16 36.331 16.6.0 4742 - A NR\_newRAT-Core, LTE\_5GCN\_connect-Core

### 5.4.3 UE capabilities

Including outcome of [Post115-e][087][NR15] Simultaneous Rx/Tx cap finer granularity (NTT DOCOMO)

Simultaneous Rx/Tx

Treat On-Line (first)

[R2-2110565](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110565.zip) Report for [Post115-e][087][NR15] Simultaneous Rx/Tx cap finer granularity (NTT DOCOMO) NTT DOCOMO, INC. discussion

DISCUSSION

P2

- Apple support.

P3

- Apple are ok with R15 but as asynch NRDC is from R16, R16 is ok as well.

- Chair wonder if we can have this for R15. MTK prefers R16 as R15 is since long frozen. CATT agrees, Softbank think this is very important and R15 is needed. Ericsson QC ZTE Nokia are ok with R15. MTK could accept R15. Huawei think R15 is not preferred but can accept.

P4

- Docomo explains that there is need to discuss in order to validate this in MRDC scenarios.

* Adopt Solution 1 in section 3.1 (bitmap-based solution in [2]) for UE capability signalling design.
* Introduce this from R15
* Continue offline the discussion on MR-DC, CR approval,

CB online Monday Nov 8

[R2-2111493](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111493.zip) Report for [AT116-e][037][NR15] Simultaneous Rx/Tx UE capability per band pair NTT DOCOMO, Inc. discussion Rel-15 NR\_newRAT-Core

DISCUSSION

P3

- Ericsson can accept it. Current field description doesn’t prevent it. Nokia Huawei CATT are ok

General

- Apple think we will have cases that base-stations has or has not implemented this. How will this work from UE point of view. Docomo think this was discussed last meeting, the network will the look at per BC capability. Apple would like to capture a note on this. Ericsson think we can have a note in the cover sheet. Chair think indeed this may need to be captured and coversheet may be a good place. To be considered in continued offline.

* That the SN can use *selectedBandEntriesMNList* to determine for which band pair(s) it should check *SimultaneousRxTxPerBandPair*, is clarified in the field description.
* Will not send an LS to R3
* [AT116-e][037][NR15] Simultaneous Rx/Tx UE capability per band pair (NTT DOCOMO)

Scope: Based on [R2-2110565](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110565.zip) and on-line agreements, progress discussion on MR-DC, CR approval

Intended outcome: Report, Agreed CRs

Finish Deadline: Thursday Week2 (intermediate deadlines by Rapporteur) Online CB not expected but possible if Needed

[R2-2110571](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110571.zip) Remaining issues on simultaneous Rx/Tx capability per band pair NTT DOCOMO, INC. discussion Rel-15 NR\_newRAT-Core

* [037] Noted

[R2-2110570](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110570.zip) Draft LS on dynamic resource coordination for simultaneous Rx/Tx UE capability NTT DOCOMO, INC. LS out Rel-15 NR\_newRAT-Core To:RAN3

* [037] Noted

[R2-2110566](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110566.zip) Simultaneous Rx/Tx UE capability per band pair NTT DOCOMO, INC. CR Rel-15 38.331 15.15.0 2805 - F NR\_newRAT-Core R2-2109188

[R2-2110567](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110567.zip) Simultaneous Rx/Tx UE capability per band pair NTT DOCOMO, INC. CR Rel-16 38.331 16.6.0 2806 - A NR\_newRAT-Core R2-2109189

[R2-2110568](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110568.zip) Simultaneous Rx/Tx UE capability per band pair NTT DOCOMO, INC. CR Rel-15 38.306 15.15.0 0639 - F NR\_newRAT-Core R2-2109190

[R2-2110569](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110569.zip) Simultaneous Rx/Tx UE capability per band pair NTT DOCOMO, INC. CR Rel-16 38.306 16.6.0 0640 - A NR\_newRAT-Core R2-2109191

* [037] All 4 revised
* [AT116-e][003][NR15] UE Capabilities I (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109310](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109310.zip), [R2-2110969](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110969.zip), [R2-2110970](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110970.zip), [R2-2110971](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110971.zip), [R2-2110972](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110972.zip),

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

Misc

[R2-2109310](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109310.zip) Reply LS on the Intra-band and Inter-band (NG)EN-DC/NE-DC Capabilties (R1-2108378; contact: ZTE) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2 Cc:RAN4

[R2-2110969](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110969.zip) Clarification on intraAndInterF-MeasAndReport capability Huawei, HiSilicon CR Rel-15 38.306 15.15.0 0655 - F NR\_newRAT-Core

[R2-2110970](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110970.zip) Clarification on intraAndInterF-MeasAndReport capability Huawei, HiSilicon CR Rel-16 38.306 16.6.0 0656 - A NR\_newRAT-Core

[R2-2110971](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110971.zip) Miscellaneous corrections for Rel-15 UE capabilities Huawei, HiSilicon CR Rel-15 38.306 15.15.0 0657 - F NR\_newRAT-Core

[R2-2110972](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110972.zip) Miscellaneous corrections for Rel-15 UE capabilities Huawei, HiSilicon CR Rel-16 38.306 16.6.0 0658 - A NR\_newRAT-Core

### 5.4.4 Idle/inactive mode procedures

This agenda item addresses the idle and inactive behaviour specified in 38.304 or 36.304. Other aspects related to inactive (e.g. state transitions, out of coverage, etc) are covered under RRC agenda items (5.4.1.x)

## 5.5 Positioning corrections

Corrections to both the stage 2 and stage 3 aspects related to positioning. Stage 2 CRs shall be discussed with the specification rapporteur (Sven Fischer sfischer@qti.qualcomm.com) before submission. Stage 2 CRs not discussed with the specification rapporteur will not be treated.

Documents in this agenda item will be handled by email. No web conference is planned for this agenda item.

[R2-2111126](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111126.zip) Correction on LPP message delivery vivo CR Rel-15 37.355 15.2.0 0324 - F NR\_pos-Core

[R2-2111127](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111127.zip) Correction on LPP message delivery vivo CR Rel-16 37.355 16.6.0 0325 - A NR\_pos-Core

# 6 Rel-16 NR Work Items

Essential corrections only.

Tdoc Limitation: 18 tdocs in total for all sub agenda items, or the restriction for each sub-AI, whichever is more restrictive.

## 6.1 Common

Includes the following WIs and input that doesn’t fit elsewhere.

(NR\_IAB-Core; leading WG: RAN2; REL-16; started: Dec 18; target Aug 20; WID: RP-200840)

(NR\_unlic-Core; leading WG: RAN1; REL-16; started: Dec 18; Closed June 20; WID: RP-192926).

(NR\_IIOT-Core; leading WG: RAN2; REL-16; started: Mar 19; Completed: Jun 20; WID: RP-200797)

(NR\_UE\_pow\_sav-Core; leading WG: RAN1; REL-16; started: Mar 19; Completed Jun 20; WID: RP-200494).

(NR\_2step\_RACH-Core; leading WG: RAN1; REL-16; started: Dec 18; Completed: June 20; WID: RP-200085).

(SRVCC\_NR\_to\_UMTS-Core; leading WG: RAN2; REL-16; started: Dec 18; Completed; Mar 20; WID: RP-190713)

(RACS-RAN-Core, leading WG: RAN2; REL-16; started: Mar 19; completed: Jun 20; WID: RP-191088)

(NG\_RAN\_PRN-Core; leading WG: RAN3; REL-16; started: Mar 19; completed: June 20; WID: RP-200122)

(NR\_eMIMO-Core, leading WG: RAN1; REL-16; started: Jun 18; target; Aug 20; WID: RP-200474;)

(NR\_CLI\_RIM; leading WG: RAN1; REL-16; started: Dec 18; Completed: Jun 20; WID: RP-191997;)

(NR\_L1enh\_URLLC-Core, leading WG: RAN1; REL-16; Completed: June 20; WID: RP-191584)

(LTE\_NR\_DC\_CA\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Target Aug 20; WI RP-200791)

(NR\_Mob\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed June 20; WID: RP-192277).

(NR\_HST, NR\_RRM\_enh-Core, NR\_RF\_FR1, NR\_RF\_FR2\_req\_enh, NR\_n66\_BW, LTE\_NR\_B41\_Bn41\_PC29dBm-Core, NR\_CSIRS\_L3meas,)

(NR TEI16).

LTE mob enh corrections that are common with NR mobility enhancements should be submitted to this AI 6.1.X. LTE-only corrections, see AI 7.

### 6.1.1 Organisational

Incoming LSs, etc.

* [AT116-e][004][NR16] CPUP split reply LS (CATT)

Scope: Determine agreeable parts in a first phase, if agreeable then agree on reply LS out Treat [R2-2109344](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109344.zip), [R2-2111068](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111068.zip), [R2-2111069](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111069.zip).

Intended outcome: Report, Approved LS out if applicable

Deadline: Friday W1 (Nov 5), CLOSED

[R2-2111466](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111466.zip) Report of ‎[AT116-e][004][NR16] CPUP split reply LS (CATT)‎ CATT

* [004] Noted, agreements reflected below

[R2-2111467](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111467.zip) Draft Reply LS on downlink unmapped QoS flows CATT LS out Rel-16 NR\_CPUP\_Split To:RAN3

* [004] the LS out is Approved, Final version in R2-2111492

CPUP Split

[R2-2109344](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109344.zip) LS on downlink unmapped QoS flows (R3-214453; contact: CATT) RAN3 LS in Rel-16 NR\_CPUP\_Split To:RAN2

[R2-2111068](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111068.zip) Discussion on downlink unmapped QoS flows CATT, Huawei, HiSilicon discussion Rel-16 NR\_CPUP\_Split

[R2-2111069](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111069.zip) Draft Reply LS on downlink unmapped QoS flows CATT LS out Rel-16 NR\_CPUP\_Split To:RAN3

* [004] The 3 tdocs above are Noted

### 6.1.2 Stage 2 corrections

You should discuss your stage 2 CRs with the specification rapporteurs before submission.

* [AT116-e][005][NR16] Stage-2 (Nokia)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109535](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109535.zip), [R2-2109952](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109952.zip), [R2-2110732](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110732.zip), [R2-2109459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109459.zip), [R2-2110527](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110527.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

#### 6.1.2.1 TS 3x.300

[R2-2109535](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109535.zip) Corrections to early measurements in RRC INACTIVE Samsung Electronics Co., Ltd CR Rel-16 38.300 16.7.0 0390 - F NR\_Mob\_enh-Core

[R2-2109952](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109952.zip) Miscellaneous Corrections Nokia (Rapporteur), Nokia Shanghai Bell, Sharp CR Rel-16 38.300 16.7.0 0391 - F NR\_IIOT\_URLLC\_enh-Core

[R2-2110732](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110732.zip) Correction to 38300 on 2step CFRA configuration ZTE Corporation, Sanechips CR Rel-16 38.300 16.7.0 0395 - F NR\_2step\_RACH-Core

#### 6.1.2.2 TS 37.340

[R2-2109459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109459.zip) Correction on conditional reconfiguration for PSCell Google Inc., Intel Corporation, ZTE CR Rel-16 37.340 16.7.0 0287 - F NR\_Mob\_enh-Core

[R2-2110527](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110527.zip) Corrections on SCG/MCG failure handling ZTE Corporation, Sanechips CR Rel-16 37.340 16.7.0 0288 - F NR\_newRAT-Core, LTE\_NR\_DC\_CA\_enh-Core

### 6.1.3 User Plane corrections

#### 6.1.3.1 MAC

* [AT116-e][006][NR1516] MAC (Qualcomm)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109457](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109457.zip) (AI 5.3.1), [R2-2109458](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109458.zip) (AI 5.3.1), [R2-2109921](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109921.zip), [R2-2110948](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110948.zip), [R2-2110949](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110949.zip), [R2-2110244](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110244.zip), [R2-2109650](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109650.zip), [R2-2109948](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109948.zip), [R2-2110763](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110763.zip), [R2-2110946](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110946.zip), [R2-2111231](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111231.zip), [R2-2109533](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109533.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

NR-U

[R2-2109921](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109921.zip) Handling of One-shot HARQ feedback for NR-U Qualcomm Incorporated discussion

Moved from 6.1.3

[R2-2110948](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110948.zip) DRX HARQ RTT timer for one-shot HARQ feedback LG Electronics Deutschland discussion Rel-16 38.321 NR\_unlic-Core

[R2-2110949](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110949.zip) CR to DRX HARQ RTT timer for one-shot HARQ feedback LG Electronics Deutschland CR Rel-16 38.321 16.6.0 1175 - F NR\_unlic-Core

[R2-2110244](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110244.zip) Start of DRX RTT timer for one-shot HARQ feedback Lenovo, Motorola Mobility CR Rel-16 38.321 16.6.0 1170 - F NR\_unlic-Core

IIOT

[R2-2109650](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109650.zip) Clarifying the handling of Multi-TB CGs in MAC CATT discussion NR\_IIOT-Core

[R2-2109948](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109948.zip) Clarification on Duplication MAC CE Samsung discussion Rel-16 NR\_IIOT-Core

2-Step RACH

[R2-2110763](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110763.zip) Correction on downlink pathloss reference for 2-step RACH Qualcomm Incorporated CR Rel-16 38.321 16.6.0 1172 - F NR\_2step\_RACH-Core

[R2-2110946](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110946.zip) Discussion on MSGA grant overlapping with another UL grant for a HARQ process LG Electronics Deutschland discussion Rel-16 38.321 NR\_2step\_RACH-Core

[R2-2111231](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111231.zip) Correction to MsgA and Msg3 retransmission overlapping with another bundle retransmission Huawei, HiSilicon CR Rel-16 38.321 16.6.0 1178 - F NR\_2step\_RACH-Core, NR\_IIOT-Core Late

eMIMO

[R2-2109533](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109533.zip) Corrections to LCP for truncated SCell BFR MAC CE Samsung Electronics Co., Ltd CR Rel-16 38.321 16.6.0 1160 - F NR\_eMIMO-Core

#### 6.1.3.2 RLC

#### 6.1.3.3 PDCP

* [AT116-e][007][NR1516] PDCP (Samsung)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2111027](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111027.zip) (AI 5.3.2), [R2-2109945](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109945.zip), [R2-2109946](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109946.zip), [R2-2109947](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109947.zip), [R2-2110757](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110757.zip), [R2-2110758](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110758.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

[R2-2109945](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109945.zip) Clarification on the ciphering of LTE EHC header Samsung discussion Rel-16 NR\_IIOT-Core

* [007] noted

[R2-2109946](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109946.zip) CR for the ciphering of LTE EHC header (Rel-15) Samsung CR Rel-15 36.323 15.6.0 0297 - F NR\_IIOT-Core

[R2-2109947](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109947.zip) CR for the ciphering of LTE EHC header (Rel-16) Samsung CR Rel-16 36.323 16.4.0 0298 - A NR\_IIOT-Core

* [007] both revised

R2-2111480 CR for the ciphering of LTE EHC header (Rel-15) Samsung CR Rel-15 36.323 15.6.0 0297 1 F NR\_IIOT-Core

R2-2111481 CR for the ciphering of LTE EHC header (Rel-16) Samsung CR Rel-16 36.323 16.4.0 0298 1 A NR\_IIOT-Core

* [007] both agreed

[R2-2110757](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110757.zip) Clarification on joint EHC and RoHC operation MediaTek Inc. CR Rel-16 38.323 16.5.0 0083 - F NR\_IIOT-Core

[R2-2110758](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110758.zip) Clarification on joint EHC and RoHC operation MediaTek Inc. CR Rel-16 36.323 16.4.0 0299 - F NR\_IIOT-Core

#### 6.1.3.4 SDAP

#### 6.1.3.5 BAP

### 6.1.4 Control Plane corrections

#### 6.1.4.1 NR RRC

In case a correction need to mirrored for both NR RRC and LTE RRC, the corrections should be submitted under the same AI (i.e. the sub-AIs below this).

##### 6.1.4.1.1 Connection control

Including L1 Parameters, L2 Parameters, Connection establishment and release, Connection reconfiguration (also reconfig with sync, Handover), Connection resume and release with RRC\_INACTIVE state, Security procedures, re-establishment, RRC processing delay requirements etc.

* [AT116-e][008][NR16] Connection Control I (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110879](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110879.zip), [R2-2109314](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109314.zip), [R2-2110626](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110626.zip), [R2-2109864](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109864.zip), [R2-2110421](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110421.zip), [R2-2110423](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110423.zip), [R2-2111173](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111173.zip), [R2-2110631](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110631.zip), [R2-2110632](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110632.zip), [R2-2111080](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111080.zip), [R2-2111070](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111070.zip), [R2-2111071](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111071.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

[R2-2111286](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111286.zip) Report of [AT116-e][008][NR16] Connection Control I (Huawei) Huawei

* [008] Noted, agreements reflected below

L1 eMIMO

[R2-2110879](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110879.zip) Correction on pucch-SpatialRelationInfoId-v1610 Huawei, HiSilicon CR Rel-16 38.331 16.6.0 2858 - F NR\_eMIMO-Core

- [008] Rap P1: R2-2110879 can be agreed with a modification, i.e. mention NBC in the cover page.

* [008] revised

L1 NR-U

[R2-2109314](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109314.zip) LS to RAN2 on default value for rb-Offset (R1-2108436; contact: Ericsson) RAN1 LS in Rel-16 NR\_unlic-Core To:RAN2

* [008] Noted

[R2-2109864](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109864.zip) Correction of default value of rb-offset Ericsson CR Rel-16 38.331 16.6.0 2819 - F NR\_unlic-Core

* [008] revised

R2-2111478 Correction of default value of rb-offset Ericsson CR Rel-16 38.331 16.6.0 2819 1 F NR\_unlic-Core

[R2-2110626](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110626.zip) Clarification of default value for rb-Offset Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.6.0 2840 - F NR\_unlic

* [008] not pursued

Conditional Reconfiguration

[R2-2110421](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110421.zip) CPC handling during recovery procedure Lenovo, Motorola Mobility CR Rel-16 38.331 16.6.0 2828 - F NR\_Mob\_enh-Core

* [008] not pursued

[R2-2110423](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110423.zip) CPC handling during recovery procedure Lenovo, Motorola Mobility CR Rel-16 36.331 16.6.0 4731 - F LTE\_feMob-Core

* [008] not pursued

[R2-2111173](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111173.zip) Conditional Handover with Two Triggering Events MediaTek Inc. CR Rel-16 38.306 16.6.0 0663 - F NR\_Mob\_enh-Core

* [008] not pursued

[R2-2111178](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111178.zip) Conditional Handover with Two Trigger Events MediaTek Inc. CR Rel-16 36.306 16.6.0 1832 - F LTE\_feMob-Core

* [008] not pursued

[R2-2110631](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110631.zip) Correction on condRRCReconfig field description Huawei, HiSilicon CR Rel-16 38.331 16.6.0 2842 - F NR\_Mob\_enh-Core

* [008] revised

R2-211xxxx Correction on condRRCReconfig field description Huawei, HiSilicon CR Rel-16 38.331 16.6.0 2842 1 F NR\_Mob\_enh-Core

[R2-2110632](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110632.zip) Correction on condReconfigurationToApply field description Huawei, HiSilicon CR Rel-16 36.331 16.6.0 4736 - F LTE\_feMob-Core

* [008] revised

R2-211xxxx Correction on condReconfigurationToApply field description Huawei, HiSilicon CR Rel-16 36.331 16.6.0 4736 1 F LTE\_feMob-Core

[R2-2111080](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111080.zip) Conditional reconfiguration issues for modification of measId Xiaomi Communications discussion

Moved from 6.1.4.1.2

* [008] Noted

[R2-2111070](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111070.zip) Modification of reportConfig for conditional reconfiguration Xiaomi Communications CR Rel-16 38.331 16.6.0 2860 - F NR\_Mob\_enh-Core

Moved from 6.1.4.1.2

* [008] not pursued

[R2-2111071](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111071.zip) Modification of reportConfig for conditional reconfiguration Xiaomi Communications CR Rel-16 36.331 16.6.0 4743 - F LTE\_feMob-Core

Moved from 6.1.4.1.2

* [008] not pursued
* [AT116-e][009][NR16] Connection Control II (Ericsson)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109340](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109340.zip), [R2-2109887](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109887.zip), [R2-2109888](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109888.zip), [R2-2110682](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110682.zip), [R2-2110683](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110683.zip), [R2-2110684](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110684.zip), [R2-2111036](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111036.zip), [R2-2110945](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110945.zip), [R2-2110012](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110012.zip), [R2-2110756](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110756.zip),

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

DCCA Inter-MN RRC resume without SN change

[R2-2109340](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109340.zip) LS on inter-MN RRC resume without SN change (R3-214360; contact: Qualcomm) RAN3 LS in Rel-17 LTE\_NR\_DC\_enh2-Core To:RAN2

Moved from 8.2.1

[R2-2109887](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109887.zip) Discussion on inter-MN RRC resume without SN change ZTE Corporation, Sanechips discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

[R2-2109888](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109888.zip) Reply LS on inter-MN RRC resume without SN change ZTE Corporation, Sanechips LS out Rel-16 LTE\_NR\_DC\_CA\_enh-Core To:RAN3

[R2-2110682](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110682.zip) Support of inter-MN RRC resume without SN change Ericsson discussion Rel-16 TEI16, LTE\_NR\_DC\_enh2-Core

[R2-2110683](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110683.zip) [Draft] Reply LS on inter-MN RRC resume without SN change Ericsson LS out Rel-16 TEI16, LTE\_NR\_DC\_enh2-Core To:RAN3

[R2-2110684](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110684.zip) Clarification on restore MCG and SCG in case of RRC resume Ericsson CR Rel-16 37.340 16.7.0 0289 - F TEI16, LTE\_NR\_DC\_CA\_enh-Core

[R2-2111036](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111036.zip) Discussion on LS on Inter-MN RRC resume without SN change vivo discussion Rel-16 TEI16

[R2-2110945](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110945.zip) Inter-MN RRC resume without SN change - RAN2 aspects Qualcomm Incorporated, Nokia, Nokia Shanghai Bell discussion Rel-17

Moved from 8.2.1

[R2-2110012](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110012.zip) Reply LS on Inter-MN RRC resume without SN change Qualcomm Incorporated LS out Rel-17 To:RAN3

Moved from 8.2.1

IIOT – Mobility

[R2-2110756](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110756.zip) Correction to need code for drb-ContinueEHC-DL and drb-ContinueEHC-UL MediaTek Inc. CR Rel-16 38.331 16.6.0 2845 - F NR\_IIOT-Core

* [AT116-e][010][NR16] Connection Control III (vivo)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110523](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110523.zip), [R2-2110524](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110524.zip), [R2-2110525](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110525.zip), [R2-2110526](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110526.zip), [R2-2109346](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109346.zip), [R2-2110685](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110685.zip), [R2-2110686](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110686.zip), [R2-2111037](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111037.zip), [R2-2111200](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111200.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

TEI16 - NR SA to ENDC Handover

Chair Comment: WI Code should be TEI16?

[R2-2110523](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110523.zip) Discussion on the Timing Reference of PSCell SMTC Configuration vivo discussion Rel-16 NR\_newRAT-Core

Moved from 5.4.1.1

[R2-2110524](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110524.zip) Clarification on the Timing Reference of PSCell SMTC Configuration vivo CR Rel-16 38.331 16.6.0 2836 - F NR\_newRAT-Core

Moved from 5.4.1.1

[R2-2110525](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110525.zip) Define the UE capability for PSCell SMTC configuration vivo CR Rel-16 38.306 16.6.0 0652 - F NR\_newRAT-Core

Moved from 5.4.1.1

[R2-2110526](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110526.zip) Clarification on the Timing Reference of PSCell SMTC Configuration vivo CR Rel-16 36.331 16.6.0 4735 - F NR\_newRAT-Core

Moved from 5.4.1.1

TEI16 - Security

[R2-2109346](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109346.zip) LS on UP security policy updated by intra-cell handover (R3-214464; contact: China Telecom) RAN3 LS in Rel-16 TEI16 To:RAN2 Cc:SA3

[R2-2110685](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110685.zip) Discussion on UP security policy updated by intra-cell handover Ericsson discussion Rel-16 TEI16

[R2-2110686](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110686.zip) [Draft] Reply LS on UP security policy updated by intra-cell handover Ericsson LS out Rel-16 TEI16 To:RAN3 Cc:SA3

[R2-2111037](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111037.zip) Discussion on Ls on UP security update vivo discussion Rel-16 TEI16

[R2-2111200](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111200.zip) Discussion on UP security policy updated by intra-cell handover China Telecommunications discussion

**Withdrawn**

R2-2109792 Inter-MN RRC resume without SN change Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_newRAT-Core, TEI16 Withdrawn

* [AT116-e][011][NR16] RRC Measurements Other and LTE (Ericsson)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2110982](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110982.zip), [R2-2109445](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109445.zip), [R2-2110579](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110579.zip), [R2-2110580](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110580.zip), [R2-2110697](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110697.zip), [R2-2110794](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110794.zip), [R2-2110878](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110878.zip), [R2-2111079](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111079.zip), [R2-2110725](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110725.zip),

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

##### 6.1.4.1.2 RRM and Measurements

[R2-2110982](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110982.zip) Discussion on inter-frequency no gap measurement in NR-DC Huawei, HiSilicon discussion Rel-16 NR\_newRAT-Core

##### 6.1.4.1.3 System Information and Paging

##### 6.1.4.1.4 Inter-Node RRC messages

##### 6.1.4.1.5 Other

[R2-2109445](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109445.zip) Correction on msgA-SubcarrierSpacing vivo, Samsung CR Rel-16 38.331 16.6.0 2814 - F NR\_2step\_RACH-Core

[R2-2110579](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110579.zip) Correction on description of absoluteFrequencySSB ZTE Corporation, Sanechips CR Rel-16 38.331 16.6.0 2837 - F NR\_unlic-Core

[R2-2110580](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110580.zip) Correction on description of cp-ExtensionC2 and cp-ExtensionC3 ZTE Corporation, Sanechips CR Rel-16 38.331 16.6.0 2838 - F NR\_unlic-Core

[R2-2110697](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110697.zip) Miscellaneous non-controversial corrections Set XII Ericsson CR Rel-16 38.331 16.6.0 2844 - F NR\_newRAT-Core, TEI16

[R2-2110794](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110794.zip) Extension of pathlossReferenceRSs MediaTek Inc. CR Rel-16 38.331 16.6.0 2849 - F TEI16

[R2-2110878](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110878.zip) Correction on supportNewDMRS-Port-r16 capability Huawei, HiSilicon CR Rel-16 38.331 16.6.0 2857 - F NR\_eMIMO-Core

#### 6.1.4.2 LTE changes

LTE-specific changes for these WIs. Changes that are applied to both LTE and NR shall be treated together under respective Agenda item other than this one.

[R2-2111079](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111079.zip) SCG Overheating termination indication in EN-DC Qualcomm Incorporated, Ericsson CR Rel-16 36.331 16.6.0 4744 - F TEI16

Moved from 5.4.1.1

[R2-2110725](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110725.zip) Correction on sending SCG Overheating in EN-DC Nokia, Nokia Shanghai Bell CR Rel-16 36.331 16.6.0 4737 - F TEI16, NR\_newRAT-Core

#### 6.1.4.3 UE capabilities

Note that incoming LS [R2-2109313](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109313.zip) is moved to AI 6.3.1

* [AT116-e][012][NR16] UE capabilities I (OPPO)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109331](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109331.zip), [R2-2109395](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109395.zip), [R2-2110563](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110563.zip), [R2-2110633](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110633.zip), [R2-2110023](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110023.zip), [R2-2110024](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110024.zip), [R2-2110420](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110420.zip), [R2-2110231](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110231.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

Two PUCCH Capability

[R2-2109331](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109331.zip) Reply LS on Two PUCCH Capability (R1-2108657; contact: Qualcomm) RAN1 LS in Rel-16 NR\_L1enh\_URLLC-Core To:RAN2

Moved from 6.1.1

Chair: LS Contact Company is asked to provide a CR (assume this is needed).

**DAPS**

[R2-2109395](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109395.zip) Discussion on capability for DAPS OPPO discussion Rel-16 NR\_Mob\_enh-Core

[R2-2110563](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110563.zip) Keeping or removing diffSCS-DAPS Ericsson discussion Rel-16 NR\_Mob\_enh-Core

[R2-2110633](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110633.zip) Discussion on some issues for DAPS Huawei, HiSilicon discussion Rel-16 NR\_Mob\_enh-Core

Moved from 6.1.4.1.1

eMIMO

[R2-2110023](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110023.zip) Correction on R16 UE capability of supportedSINR-meas-r16 Apple CR Rel-16 38.331 16.6.0 2822 - F NR\_eMIMO-Core

[R2-2110024](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110024.zip) Correction on R16 UE capability of supportedSINR-meas-r16 Apple CR Rel-16 38.306 16.6.0 0647 - F NR\_eMIMO-Core

DCCA

[R2-2110420](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110420.zip) Discussion on the handover delay due to SCell activation OPPO discussion Rel-16 LTE\_NR\_DC\_CA\_enh

MDT

[R2-2110231](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110231.zip) Add the missing capabilities for SON and MDT CMCC CR Rel-16 38.822 16.1.0 0007 - B NR\_SON\_MDT-Core

* [AT116-e][013][NR16] UE capabilities II (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2111058](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111058.zip), [R2-2110777](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110777.zip), [R2-2110483](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110483.zip), [R2-2110484](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110484.zip), [R2-2110780](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110780.zip), [R2-2110627](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110627.zip), [R2-2110628](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110628.zip), [R2-2110629](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110629.zip), [R2-2110973](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110973.zip),

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

[R2-2111058](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111058.zip) Clarification on UL MIMO layer reporting for 1Tx-2Tx switching Huawei, HiSilicon, China Telecom, Apple CR Rel-16 38.306 16.6.0 0661 - F NR\_RF\_FR1-Core\

[R2-2110777](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110777.zip) Support of UL Tx switching and relation with further enhancements Ericsson discussion

UL TX Switching (UL MIMO Coherence)

[R2-2110483](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110483.zip) Adding UE capability of UL MIMO coherence for UL Tx switching Huawei, HiSilicon, China Telecom, Apple CR Rel-16 38.306 16.6.0 0635 - F NR\_RF\_FR1-Core R2-2108618

[R2-2110484](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110484.zip) Adding UE capability of UL MIMO coherence for UL Tx switching Huawei, HiSilicon, China Telecom, Apple CR Rel-16 38.331 16.6.0 2786 - F NR\_RF\_FR1-Core R2-2108619

[R2-2110780](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110780.zip) UL MIMO coherence for Tx switching between two carriers Ericsson discussion

**Others**

[R2-2110627](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110627.zip) Clarification regarding CodebookVariantsList-r16 Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.6.0 2841 - F NR\_newRAT-Core, TEI16

[R2-2110628](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110628.zip) Clarification regarding CodebookVariantsList-r16 Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.6.0 0653 - F NR\_newRAT-Core, TEI16

[R2-2110629](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110629.zip) Clarification regarding CodebookVariantsList-r16 Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_newRAT-Core, TEI16

[R2-2110973](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110973.zip) Miscellaneous corrections for Rel-16 UE capabilities Huawei, HiSilicon CR Rel-16 38.306 16.6.0 0659 - F NR\_RF\_FR2\_req\_enh, NR\_eMIMO-Core

#### 6.1.4.4 Idle/inactive mode procedures

This agenda item addresses the idle and inactive behaviour specified in 38.304 or 36.304. Other aspects related to inactive (e.g. state transitions, out of coverage, etc) are covered under RRC agenda items

* [AT116-e][014][NR16] Idle Inactive (CATT)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat [R2-2109369](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109369.zip), [R2-2109580](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109580.zip), [R2-2109581](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109581.zip), [R2-2109774](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109774.zip), [R2-2110405](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110405.zip), [R2-2110406](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110406.zip), [R2-2110407](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110407.zip)

Intended outcome: Report, Agreed CRs if applicable

Deadline: Schedule 1

IAB

[R2-2109369](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109369.zip) Reply LS on power class and P-max for IAB-MT cell selection (R4-2115704; contact: CATT) RAN4 LS in Rel-16 NR\_IAB-Core To:RAN2

[R2-2109580](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109580.zip) Correction for TS 38.304 on power class for cell selection of IAB CATT,Huawei, HiSilicon CR Rel-16 38.304 16.6.0 0222 - F NR\_IAB-Core

[R2-2109581](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109581.zip) Correction for TS 36.304 on power class for cell selection of IAB CATT,Huawei,HiSilicon CR Rel-16 36.304 16.5.0 0833 - F NR\_IAB-Core

RRM Relaxation

[R2-2109774](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109774.zip) Correction on RRM relaxation of higher priority frequencies OPPO CR Rel-16 38.304 16.6.0 0212 - F NR\_UE\_pow\_sav-Core R2-2107088

[R2-2110405](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110405.zip) RRM relaxation Ericsson discussion Rel-16 NR\_UE\_pow\_sav-Core

[R2-2110406](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110406.zip) Addressing inconsistency for RRM measurement rules Ericsson, CATT CR Rel-16 38.304 16.6.0 0214 - F NR\_UE\_pow\_sav-Core R2-2108841

[R2-2110407](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110407.zip) DRAFT LS on highPriorityMeasRelax parameter Ericsson LS out Rel-16 NR\_UE\_pow\_sav-Core To:RAN4

## 6.2 NR V2X

(5G\_V2X\_NRSL-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Aug 20; WID: RP-200129).

Documents in this agenda item will be handled in a break out session

Tdoc Limitation: See tdoc limitation for Agenda Item 6

CR rapporteurs will take care of miscellaneous CRs to collect small changes. Please contact / coordinate with CR rapporteur company first for small changes (e.g. non-controversial clarification/correction, editorial correction, etc.).

### 6.2.1 General and Stage-2 corrections

Including incoming LSs, rapporteur inputs, etc.

[R2-2109311](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109311.zip) LS to RAN2 on mode 2 resource reservation period (R1-2108393; contact: Huawei) RAN1 LS in Rel-16 5G\_V2X\_NRSL-Core To:RAN2

[R2-2109315](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109315.zip) Reply LS on Resource Reselection Trigger sl-reselectAfter (R1-2108438; contact: Apple) RAN1 LS in Rel-16 5G\_V2X\_NRSL-Core To:RAN2

### 6.2.2 Control plane corrections

This agenda item may utilize a summary document on RRC (Huawei).

[R2-2109596](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109596.zip) Miscelleneous CR on 38.331 Huawei, HiSilicon CR Rel-16 38.331 16.6.0 2815 - F 5G\_V2X\_NRSL-Core

R2-2109628 Mode 2 Resource Reservation Period Qualcomm Finland RFFE Oy discussion Rel-16 38.331 Withdrawn

[R2-2109629](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109629.zip) Discussion on mode 2 resource reservation period Qualcomm Finland RFFE Oy discussion Rel-16 38.331

[R2-2109630](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109630.zip) CR to 38.331 on ResourceReservationPeriodList Qualcomm Finland RFFE Oy draftCR Rel-16 38.331 16.6.0 F 5G\_V2X\_NRSL-Core

[R2-2109804](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109804.zip) Further issues on multiplexing sidelink logical channels with HARQ feedback enabled vs. disabled Nokia, Nokia Shanghai Bell discussion Rel-16 5G\_V2X\_NRSL-Core

[R2-2109806](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109806.zip) Correction of IE sl-HARQ-FeedbackEnabled Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.6.0 2818 - F 5G\_V2X\_NRSL-Core

[R2-2110269](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110269.zip) Correction on SL RLC parameter configuration vivo CR Rel-16 38.331 16.6.0 2827 - F 5G\_V2X\_NRSL-Core

[R2-2110611](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110611.zip) Corrections on RRC parameter sl-ResourceReservePeriodList CATT CR Rel-16 38.331 16.6.0 2839 - F 5G\_V2X\_NRSL-Core

[R2-2110795](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110795.zip) Inclusion of 0 ms resource reservation period in sl-ResourceReservePeriodList MediaTek Inc. CR Rel-16 38.331 16.6.0 2850 - F 5G\_V2X\_NRSL-Core

[R2-2110830](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110830.zip) Correction on power control parameter ZTE Corporation, Sanechips CR Rel-16 38.331 16.6.0 2851 - F 5G\_V2X\_NRSL-Core

[R2-2110831](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110831.zip) Correction on TS 38.331 from the latest RAN1 decision ZTE Corporation, Sanechips CR Rel-16 38.331 16.6.0 2852 - F 5G\_V2X\_NRSL-Core

### 6.2.3 User plane corrections

This agenda item may utilize a summary document on MAC (LG).

[R2-2109402](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109402.zip) Correction on resource reselection behavior and MCS selection OPPO CR Rel-16 38.321 16.6.0 1158 - F 5G\_V2X\_NRSL-Core

[R2-2109417](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109417.zip) Left issue on maxTransNum OPPO, Apple, Ericsson, Lenovo, Motorola Mobility discussion Rel-16 5G\_V2X\_NRSL-Core

[R2-2109418](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109418.zip) Correction on UL-SL prioritization OPPO, Apple, MediaTek, CATT CR Rel-16 38.321 16.6.0 1159 - F 5G\_V2X\_NRSL-Core

[R2-2109534](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109534.zip) Corrections to Sidelink BWP operation Samsung Electronics Co., Ltd CR Rel-16 38.321 16.6.0 1161 - F 5G\_V2X\_NRSL-Core

[R2-2109597](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109597.zip) Correction on the dynamic sidelink grants Huawei, HiSilicon CR Rel-16 38.321 16.6.0 1162 - F 5G\_V2X\_NRSL-Core

[R2-2109598](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109598.zip) Clarification on the UL and NR SL prioritization Huawei, HiSilicon CR Rel-16 38.321 16.6.0 1163 - F 5G\_V2X\_NRSL-Core

[R2-2110058](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110058.zip) Correction on the usage of sl-ReselectAfter Apple, OPPO, Qualcomm Incorporated, Huawei, HiSilicon CR Rel-16 38.321 16.6.0 1167 - F 5G\_V2X\_NRSL-Core

[R2-2110152](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110152.zip) Clarification on exceptional pool configuration LG Electronics France discussion Rel-16 5G\_V2X\_NRSL-Core

[R2-2110153](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110153.zip) Discussion on left issue related to sl-CG-MaxTransNumList LG Electronics France discussion Rel-16 5G\_V2X\_NRSL-Core

[R2-2110154](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110154.zip) Review Report on MAC CRs LG Electronics France discussion Rel-16 5G\_V2X\_NRSL-Core Late

[R2-2110159](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110159.zip) Miscelleneous CR on 38.321 LG Electronics France CR Rel-16 38.321 16.6.0 1168 - F 5G\_V2X\_NRSL-Core Late

R2-2110160 Miscelleneous CR on 36.321 LG Electronics France CR Rel-16 36.321 16.6.0 1527 - F 5G\_V2X\_NRSL-Core Late

[R2-2110161](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110161.zip) Corrections to prioritization for NR sidelink communication LG Electronics France CR Rel-16 38.321 16.6.0 1169 - F 5G\_V2X\_NRSL-Core

[R2-2110446](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110446.zip) Correction to Window\_Size for SLRB Samsung CR Rel-16 38.323 16.5.0 0082 - F 5G\_V2X\_NRSL-Core

[R2-2110610](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110610.zip) PDCP/RLC Entity Maintenance for SL-SRBs CATT, APPLE, vivo, Huawei, HiSilicon, OPPO discussion 5G\_V2X\_NRSL-Core

[R2-2110652](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110652.zip) Remaining issues on sl-MaxTransNum configuration and UE behaviour vivo discussion Rel-16

[R2-2110829](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110829.zip) Correction on TX parameters selection ZTE Corporation, Sanechips CR Rel-16 38.321 16.6.0 1173 - F 5G\_V2X\_NRSL-Core

[R2-2110832](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110832.zip) Correction on HARQ information indication ZTE Corporation, Sanechips CR Rel-16 38.321 16.6.0 1174 - F 5G\_V2X\_NRSL-Core

[R2-2111138](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111138.zip) Corrections on Parameter Definition of the Formula for Computing CG slots CATT CR Rel-16 38.321 16.6.0 1176 - F 5G\_V2X\_NRSL-Core

## 6.3 NR Positioning Support

(NR\_pos-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: RP-200218).

(NR TEI16 Positioning)

Documents in this agenda item will be handled in a break out session

Tdoc Limitation: See tdoc limitation for Agenda Item 6

### 6.3.1 General and Stage 2 corrections

Including incoming LSs, Including impact to 36.305 and 38.305. Stage 2 corrections shall be discussed with the specification rapporteur (Sven Fischer sfischer@qti.qualcomm.com) before submission. Stage 2 CRs not discussed with the specification rapporteur will not be treated.

This agenda item may use a summary document (decision to be made based on submitted tdocs).

[R2-2109313](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109313.zip) LS on updated Rel-16 RAN1 UE features lists for NR after RAN1#105-e (R1-2108427; contact: NTT DoCoMo, AT&T) RAN1 LS in Rel-16 NR\_2step\_RACH-Core, NR\_unlic-Core, NR\_IAB-Core, 5G\_V2X\_NRSL-Core, NR\_L1enh\_URLLC-Core, NR\_IIOT-Core, NR\_eMIMO-Core, NR\_UE\_pow\_sav-Core, NR\_pos-Core, NR\_Mob\_enh-Core, LTE\_NR\_DC\_CA\_enh-Core, TEI16, NR\_CLI\_RIM-Core To:RAN2 Cc:RAN4

[R2-2109333](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109333.zip) Reply LS on E-CID LTE measurement in Rel-15 measurements (R3-212802; contact: Huawei) RAN3 LS in Rel-15 NR\_pos-Core To:RAN2

[R2-2109679](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109679.zip) Updates based on RAN1 NR positioning features list Intel Corporation CR Rel-16 38.822 16.1.0 0006 - F NR\_pos-Core

[R2-2109680](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109680.zip) Updates based on RAN1 NR positioning features list Intel Corporation CR Rel-16 37.355 16.6.0 0321 - F NR\_pos-Core

[R2-2109681](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109681.zip) Updates based on RAN1 NR positioning features list Intel Corporation CR Rel-16 38.306 16.6.0 0645 - F NR\_pos-Core

[R2-2110169](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110169.zip) Correction to the alignement between stage2 and stage3 Huawei, HiSilicon CR Rel-16 38.305 16.6.0 0081 - F NR\_pos-Core

[R2-2110170](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110170.zip) Correciton to Event Reporting in RRC\_IDLE Huawei, HiSilicon CR Rel-16 38.305 16.6.0 0076 - F NR\_pos-Core R2-2107333

[R2-2110728](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110728.zip) Corrections on defintions and scope of information transfer Ericsson CR Rel-16 38.305 16.6.0 0083 - F NR\_pos-Core

### 6.3.2 RRC corrections

Including impact to 36.331, 38.331, and 38.306.

This agenda item may use a summary document (decision to be made based on submitted tdocs).

[R2-2110172](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110172.zip) Correction to posSRS capability associated with PRS-only TP Huawei, HiSilicon CR Rel-16 38.306 16.6.0 0648 - F NR\_pos-Core

### 6.3.3 LPP corrections

This agenda item may use a summary document (decision to be made based on submitted tdocs).

[R2-2110173](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110173.zip) Correction to posSRS and PRS capability associated with PRS-only TP Huawei, HiSilicon CR Rel-16 37.355 16.6.0 0322 - F NR\_pos-Core

[R2-2111072](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111072.zip) Correction on BDS B2I clock model Swift Navigation, Ericsson CR Rel-16 37.355 16.6.0 0323 - F NR\_pos

[R2-2111198](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111198.zip) Discussion on LPP segmentation in LCS message vivo discussion Rel-16 NR\_pos-Core

### 6.3.4 MAC corrections

[R2-2110171](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110171.zip) Discussion on impacts of TA expiry and SR failure on uplink positoning Huawei, HiSilicon discussion NR\_pos-Core

## 6.4 SON/MDT support for NR

(NR\_SON\_MDT-Core; leading WG: RAN3; REL-16; started: Jun 19; Completed June 20; WID: RP-191776).

Documents in this agenda item will be handled in a break out session

Tdoc Limitation: See tdoc limitation for Agenda Item 6

### 6.4.1 General and stage-2 corrections

Including incoming LSs, TS 37.320 corrections

[R2-2109387](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109387.zip) LS Reply on QoS Monitoring for URLLC (S5-211350; contact: Intel) SA5 LS in Rel-16 NR\_SON\_MDT-Core To:RAN3 Cc:SA2, RAN2

[R2-2110634](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110634.zip) Draft Reply LS on QoS Monitoring for URLLC Huawei LS out Rel-16 NR\_SON\_MDT-Core To:RAN3, SA5 Cc:SA2

[R2-2110852](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110852.zip) On reply LS to RAN3 on MDT Stage 2 and Stage 3 Alignment (reply LS to R3-207222) Ericsson discussion

[R2-2111195](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111195.zip) TS 37.320 title update Nokia, Nokia Shanghai Bell CR Rel-16 37.320 16.6.0 0112 - F NR\_SON\_MDT-Core

### 6.4.2 TS 38.314 corrections

### 6.4.3 RRC corrections

[R2-2110004](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110004.zip) Clarification on RA report without 2 step RA CATT CR Rel-16 38.331 16.6.0 2821 - F NR\_SON\_MDT-Core

[R2-2110078](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110078.zip) Correction on RA Resource Reporting Apple, Ericsson discussion Rel-16 NR\_SON\_MDT-Core

[R2-2110079](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110079.zip) Addition of missing information into RA-InformationCommon-r16 Apple, Ericsson CR Rel-16 38.331 16.6.0 2823 - F NR\_SON\_MDT-Core

[R2-2110252](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110252.zip) Corrections on the field descriptions of IEs for CEF-report and RLF-report request NEC CR Rel-16 38.331 16.6.0 2826 - F NR\_SON\_MDT-Core

[R2-2110843](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110843.zip) On neighbor cell measurements associated to interFreqTargetInfo Ericsson CR Rel-16 38.331 16.6.0 2853 - F NR\_SON\_MDT-Core

[R2-2110851](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110851.zip) On logging of neighbour PCI measurements based on interFreqTargetInfo Ericsson discussion

[R2-2110853](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110853.zip) On neighbour CSI-RS measurements in RLF report Ericsson CR Rel-16 38.331 16.6.0 2855 - F NR\_SON\_MDT-Core

[R2-2110855](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110855.zip) On User Consent related aspects Ericsson discussion

[R2-2110858](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110858.zip) On Logging MHI report upon transition from RRC\_CONNECTED to any cell selection state Ericsson CR Rel-16 38.331 16.6.0 2856 - F NR\_SON\_MDT-Core

[R2-2110887](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110887.zip) Corrections to previousPCellID and timeConnFailure handling Ericsson discussion NR\_SON\_MDT-Core

**Withdrawn**

R2-2110002 Clarification on Location for SCG Failure Report in 38.331 CATT CR Rel-16 38.331 16.6.0 2820 - F NR\_SON\_MDT-Core Withdrawn

R2-2110003 Clarification on Location for SCG Failure Report in 36.331 CATT CR Rel-16 36.331 16.6.0 4728 - F NR\_SON\_MDT-Core Withdrawn

# 7 Rel-16 EUTRA Work Items

Only essential corrections. No documents should be submitted to 7. Please submit to 7.x

## 7.1 EUTRA Rel-16 General

No documents should be submitted to 7.1. Please submit to.7.1.x

Purely editorial corrections should be avoided, text enhancements may be deprioritized. Corrections should be taken up with the specification editor before submitting to avoid CR duplication. If this is not done, the contribution may not be treated.

### 7.1.1 Cross WI RRC corrections

Including RRC corrections that impact multiple WIs and require discussion in the common session.

[R2-2111136](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111136.zip) Correction on cellsTriggeredList Samsung R&D Institute UK CR Rel-16 36.331 16.6.0 4745 - F LTE\_Aerial-Core

### 7.1.2 Feature Lists and UE capabilities

Corrections to UE capabilities should be taken up with the 36.331 and 36.306 specification editors before submitting to avoid CR duplication. If this is not done, the contribution may not be treated.

## 7.2 Additional MTC enhancements for LTE

(LTE\_eMTC5-Core; LTE\_eMTC5-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP192875;)

Documents in this agenda item will be handled in a break out session.

Some sub-items in 7.2 and 7.3 may be treated jointly.

[R2-2109366](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109366.zip) Reply LS on RSS-based RSRQ (R4-2115425; contact: Huawei) RAN4 LS in Rel-16 LTE\_eMTC5-Core To:RAN2, RAN1

[R2-2111208](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111208.zip) Removal of RSS based RSRQ measurements Huawei, HiSilicon CR Rel-16 36.304 16.5.0 0835 - F LTE\_eMTC5-Core

## 7.3 Additional enhancements for NB-IoT

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP-200293)

Documents in this agenda item will be handled in a break out session

Some sub-items in 7.2 and 7.3 may be treated jointly.

[R2-2110240](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110240.zip) Discussion on the issue for Random Access on multicarrier for NB-IoT CMCC discussion

[R2-2110241](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110241.zip) Solving the issue for random access on multiCarrier in NB-IoT CMCC draftCR Rel-16 36.331 16.6.0 B NB\_IOTenh3-Core

[R2-2110472](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110472.zip) Correction to DL Multi-TB scheduling in NB-IoT Huawei, HiSilicon CR Rel-16 36.331 16.6.0 4734 - F NB\_IOTenh3-Core

[R2-2110762](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110762.zip) Solving the issue for random access on multiCarrier in NB-IoT CMCC draftCR Rel-16 36.321 16.6.0 F NB\_IOTenh3-Core Late

## 7.4 LTE Other WIs

(LTE\_feMob-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed: June 20; WID: RP-190921)

(LTE\_terr\_bcast-Core, LTE\_DL\_MIMO\_EE-Core, LTE\_high\_speed\_enh2-Core; LTE TEI16 Non-positioning)

(Documents relating to Rel-16 LTE but for which there is no existing RAN WI/SI, e.g. LSs from CT/SA requesting RAN2 action)

Including TEI16 corrections and issues that do not fit under any other topic.

Purely editorial corrections should be avoided, text enhancements may be deprioritized. Corrections should be taken up with the specification editor before submitting to avoid CR duplication. If this is not done, the contribution may not be treated.

For LTE mobility enhancements, only corrections that are LTE-specific should be submitted to this AI. Corrections that impact or are common with NR mobility enhancements should be submitted to 6.1.X instead.

[R2-2109803](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109803.zip) Discard of received segments of RRC messages Samsung CR Rel-16 36.331 16.6.0 4725 - F TEI16

[R2-2110805](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110805.zip) Miscellaneous corrections Nokia (rapporteur), Qualcomm Incorporated CR Rel-16 36.300 16.6.0 1350 - F LTE\_feMTC-Core, LTE\_1024QAM\_DL-Core, TEI16

## 7.5 LTE Positioning

(NavIC, LTE TEI16 Positioning)

Documents in this agenda item will be handled by email. No web conference is planned for this agenda item.

# 8 Rel-17 NR Work Items

## 8.0 Organizational

General Aspects regarding Rel 17, both NR and LTE, organizational and planning,TS creation, common aspects regarding UE caps, RRC parameters, running CRs, need for inter WI coord etc. This is not expected to be a major topic and company input is not strictly required. The main purpose of this AI is to provide opportunity for rapporteurs and other interested to illuminate important aspects for the finalization phases of Rel-17.

General

R17 TS creation. Is there any need to approve any R17 CRs at current meeting? Otherwise all R17 TSes will be created 22Q1.

Any Other Business?

* R2 will provide all R17 CR to March RP, no CRs in Dec
* In-principle agreed R17 CRs, e.g. for TEI, will need to be updated and resubmitted at R2 117e.

Proposal to Coordinate GAP development by Ericsson

- Nokia support to attempt for next meeting

* Chair AP to trigger some activity to next meeting

UE capability

[R2-2111259](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111259.zip) Preparation for Rel-17 UE capability Intel Corporation discussion Late

DISCUSSION

- P1: Chair think we used a mixed approach in R16. Ericsson think we attempted approach 1 but had some exceptions and think we can do the same. Ericsson support P2 P3

- Huawei also prefer approach 1, support P2 may include dependent caps as well in the FFS

- Nokia also agrees.

- Convida point out that mega CR will then have many WI. Chair think we debated this in R16

**For Rel17 NR UE caps:**

* Aim to Work on mega CRs (one mega CR for TS38.306 and one for TS38.331) to incorporate all RAN1/RAN4 feature groups. ​There could be exceptions, case by case.
* RAN2 should only implement the feature groups from the RAN1 and 4 feature list without any FFS (no highlighted yellow, [] and marked as FFS/TBD) into the CRs. Also Caps that are dependent on FFS Caps should not be implemented.
* Include an annex containing the RAN2 determined UE capabilities in the feature list format in the running UE capability CRs (similar to annex containing RAN2 agreements) for easy compilation into the TR38.822 in the later stage.
* For capabilities developed in R2, WIs will provide input to the mega CR.

[R2-2110782](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110782.zip) Allowing FRx/xDD differentiation on UE capabilities Ericsson, Samsung discussion

*Proposal 1 From Rel-17 onwards, if a UE capability requires at least FRx or at least xDD differentiation, it is defined with both FRx and xDD differentiation in per band signaling, i.e. no new UE capabilities will be defined in the FRX and XDD capability signaling branches.*

*Proposal 2 Inform RAN1 and RAN4 about RAN2 decision on how to handle Rel-17 UE capabilities that require xDD and/or FRx differentiation.*

DISCUSSION

- Apple agrees. Wonder if there will be restrictions to minimc per FRx per xDD. Ericsson think yes.

- Nokia think this changes the approach cmp to R15 and R16. Not comfortable with changing, think the size is impacted.

- Chair: Companies can think about it, we CB to this.

* Postponed (next meeting). Can comeback when it is clearer which capabilities require only xDD differentiation or only FRx differentiation.

RRC

[R2-2111246](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111246.zip) LS on Re-17 LTE and NR higher-layers parameter list (R1-2110575; contact: Ericsson) RAN1 LS in Rel-17 NR\_feMIMO, NR\_ext\_to\_71GHz, NR\_IIOT\_URLLC\_enh, NR\_NTN\_solutions, NR\_pos\_enh, NR\_redcap, NR\_UE\_pow\_sav\_enh, NR\_cov\_enh, NR\_IAB\_enh, NR\_SL\_enh, NR\_MBS, NR\_DSS, LTE\_NR\_DC\_enh2, LTE\_NBIOT\_eMTC\_NTN, NB\_IOTenh4\_LTE\_eMTC6, LTE\_terr\_bcast\_bands\_part1 To:RAN2, RAN3 Cc:RAN4

Chair: This LS should be taken into account for all related WIs and all related sessions. Expect this to be considered for Running / Draft CRs at this meeting.

- Ericsson point out that R1 says that the signalling is up to RAN2, so we don't need to follow exactly.

- Ericsson think that parameters in common fields shall only be used for initial access. Intel agrees with this.

- Nokia wonder if we ask questions case in a coordinated way. Ericsson think it is difficult to coordinate. Can have separate LSes.

* Take into account

[R2-2110778](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110778.zip) Set Modify Release structure Ericsson discussion

[R2-2110779](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110779.zip) Draft CR for SetModifyRelease structure (38.331) Ericsson draftCR Rel-17 38.331 16.6.0 B NR\_newRAT-Core

- Chair think we can do this by email.

- Intel are not sure whether we need this, the usefulness need to checked. Huawei agrees, and Huawei think the proposal is incomplete.

* Collect comments by email
* [AT116-e][048][NR17] RRC SetModifyRelease (Ericsson)

Scope: Review [R2-2110778](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110778.zip), [R2-2110779](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110779.zip), collect comments.

Intended outcome: Report

Deadline: EOM

## 8.1 NR Multicast

(NR\_MBS-Core; leading WG: RAN2; REL-17; WID: RP-201038)

Time budget: 2 TU

Tdoc Limitation: 7 tdocs

Email max expectation: 4-7 threads

### 8.1.1 Organizational, Requirements, Scope and Architecture

Including stage-2 proposals. Incomimg LSes, Rapporteur docs. Running CRs.

LS in

[R2-2109376](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109376.zip) LS on latest progress and outstanding issues in SA WG2 (S2-2106833; contact: Huawei) SA2 LS in Rel-17 5MBS, NR\_MBS-Core To:RAN2, RAN3

- We expect to reply, dep on progress.

* Noted

[R2-2111238](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111238.zip) Reply LS on paging for multicast session activation notification (S2-2107994; contact: ZTE) SA2 LS in Rel-17 5MBS, NR\_MBS-Core To:RAN2 Cc:RAN3

* Noted

[R2-2111240](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111240.zip) LS on MBS data forwarding (S2-2107996; contact: Qualcomm) SA2 LS in Rel-17 5MBS, NR\_MBS-Core To:RAN3, RAN2 Cc:CT4

* Noted

[R2-2111244](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111244.zip) Reply LS on MBS broadcast service continuity and MBS session identification (S2-2108175; contact: Huawei) SA2 LS in Rel-17 NR\_MBS-Core, 5MBS To:RAN2, RAN3 Cc:SA4, SA6

- Huawei think SA2 will not continue the discussion on frequency info in higher layer unless R2 replies with a motivation why we want that. Nokia agrees. Xiaomi as well. CATT as well. Ericsson think indeed this could be useful (for some use cases). QC agree this is useful.

- ZTE think we don't really want it, we just wanted feedback from SA2. Don't agree with Huawei.

* Noted
* RAN2 think frequency info in USD is useful (at least for some use cases)
* We will reply giving some motivations for freq info in USD.

[R2-2109381](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109381.zip) Reply LS for the security issue of MBS interest indication (S3-213623; contact: Xiaomi) SA3 LS in Rel-17 NR\_MBS-Core To:RAN2

- OPPO think that if TMGI is not included than we can send before sec activation. Xiaomi think all info is applicable to SA3 reply

- Nokia think that the main reason is BWP switch. Chair think that there may be a small hiccup for MBS UEs if BWP need to be switched back after reception of MII. Chair think the BWP switching would be up to gNB implementation.

* Noted
* MBS Interest indication will be sent after security activation (can still discuss whether additional optimization is needed for better BWP switching behaviour)

[R2-2111239](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111239.zip) LS on Multicast paging with TMGI (S2-2107995; contact: Qualcomm) SA2 LS in Rel-17 5MBS To:SA3 Cc:RAN2

* Noted
* [AT116-e][052][MBS] Reply LS with Freq Info in USD (Huawei)

Scope: Reply LS (reply to LS in R2-2111244) including Frequency Info in USD according to online discussion

Intended outcome: Agreeable LS out (approved if possible, otherwise online CB)

Deadline: Tuesday W2

CLOSED

[R2-2111511](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111511.zip) Further reply on MBS broadcast service continuity RAN2 LS out

* [052] Approved

CRs

The following running CRs were endorsed after R2 115e: R2-2108978 38.300 (CMCC), R2-2108923 38.304 (CATT), R2-2108926 38.321 (OPPO), R2-2108970 38.331 (Huawei)

[R2-2110954](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110954.zip) Correction of L2 architecture figure for multicast session Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 16.7.0 F NR\_MBS-Core

- Can be taken into account in the CR discussion after the meeting.

* Noted

Work planning

[R2-2110630](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110630.zip) Open issue list for NR MBS Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

- Chair plans to use OI list for agenda for next meeting. Please be careful.

- Nokia and Ericsson comments that this is useful

* Noted

### 8.1.2 L2 Centric topics

Including outcome of [Post115-e][092][MBS] Remaining User plane issues (Lenovo)

[R2-2110319](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110319.zip) [Post115-e][092][MBS] Remaining User plane issues (Lenovo) Lenovo, Motorola Mobility discussion Rel-17 Late

DISCUSSION

P4

- Ericsson can accept this but think this is not needed and think it brings extra complexity. Why do we need this? Intel think that RLC AM can handle cases of bad radio. And think this is not needed.

- Lenovo clarified that e.g. when LTM only bearer is used, but is then reconfigured to include PTP e.g. for additional robustness, then a SR gives information about what to retransmit.

- Apple think that such status report can just be used whenever by the network, no need to restrict to certain case.

- FW can accept P4 if the triggers remain the same as in legacy P5. Ericsson agrees with FW. FW clarifies that the main point to reuse same preconditions, i.e. that SR is only applicable to RLC AM

- Lenovo clarifies that this is for both AM and UM, e.g. DAPS support SR for UM.

- Sony wonder if RLC UM then has higher requirements on reliability. FW has similar concerns. QC point out that SR for UM is supported for DAPS without impact to RLC.

- FW are ok if the target configuration is for AM mode but not for UM. Samsung too.

P6 etc

- ZTE think it is clear that there no AS security for MRB so no HFN is needed. Nokia think HFN is needed anyway due to the design of NR PDCP.

- Huawei also think HFN isn’t needed.

- QC think that if HFN is used, then we definitely need HFN.

- Huawei think RRC indication will lead to desynch.

P10

- LG think RX deliv is set to same as RX next.

- SOH Agree P10: 10

Agree to LG proposal: 4

P11

- CMCC think multicast can be used in industrial setting for transport of Ethernet

LCID

- Huawei think eLCID is only used for MAC CEs think same shall apply for MRB.

- CATT think that LCID can be used to indicate whether a PDU is for PTP or PTM.

- Ericsson don’t think there is any issue with common space. Need to be able to multiplex MTCH DTCH. Think ist is not possible with current model to have soft combining between PTP and PTM which are split at PDCP. Nokia agrees

- QC think that if common is used then we will have a lack of LCIDs. Huawei think there is no issue.

- LG think Broadcast and multicast should be consistent. Think headers can be more compact if we use separate.

* A common PDCP entity is used for RRC based MRB bearer type change between PTM only MRB, PTP only MRB and split MRB.
* PDCP entity reestablishment is allowed for the MRB during handover or RRC based MRB bearer type change. When to configure PDCP entity re-establishment is a network implementation.
* It is up to gNB implementation on how to perform PDCP data recovery (in the UP) for RRC based MRB bearer type change and there is expected that no extra standard effort.
* In order to minimize the loss during MRB bearer type change, NW may configure UE to send a PDCP status report for the MRB bearer type change;

For MRB configured by upper layers to send a PDCP status report in the uplink (field *statusReportRequired* in PDCP-Config IE in RRC), the receiving PDCP entity shall (based on the RRC reconfiguration message from the network) trigger a PDCP status report in case of MRB type change;

NW is required to configure a bidirectional PTP leg (e.g. either PTP-only MRB or split MRB) if *statusReportRequired* is provided. It is up to network in which case *statusReportRequired* is configured.

* The SR can be configured only if PTP AM (with Uplink) is in the new configuration.
* EHC is supported for MRB for cases when feedback path is available (UL RLC) and it is expected that no further optimizations are needed.
* for multicast MRB, the initial value of the SN part of RX\_NEXT is (x +1) modulo (2[*PDCP-SN-Size*]), where x is the SN of the first received PDCP Data PDU.
* the initial value of RX\_DELIV is set to a value before RX\_NEXT, e.g. the initial value of the SN part of RX\_DELIV is (x – 0.5 × 2[*PDCP-SN-Size*–1]) modulo (2[*PDCP-SN-Size*]), where x is the SN of the first received PDCP Data PDU.
* If HFN is needed (FFS), the initial value of HFN (maybe + related PDCP SN to avoid ambiguity of HFN FFS) is indicated by the gNB by RRC (e.g. during RRC based MRB bearer type change).
* for multicast MRB, the initial value of the SN part of RX\_NEXT is (x +1) modulo (2[*PDCP-SN-Size*]), where x is the SN of the first received PDCP Data PDU.
* for multicast PTM, the RX\_Next\_Highest is initially set to the SN of the first received UMD PDU containing an SN
* for multicast PTM, the initial value of RX\_Next\_Reassembly is set to a value before the RX\_Next\_Highest.
* The RLC entity release and/or establishment procedures are performed during RRC based MRB bearer type change for PTM only <-> PTP only.
* bidirectional UM RLC configuration is supported for PTP transmission and it is up to NW implementation to configure bidirectional UM RLC or DL only UM RLC for PTP transmission.
* Common LCID space is used for Multicast MRB (in Connected mode).
* one-to-many mapping between G-RNTI and MBS sessions is supported and it is assumed that this does not introduce additional specification work.
* [AT116-e][050][MBS] UP continuation (Lenovo)

Scope: Treat remaining less controversial proposals from [R2-2110319](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110319.zip). Attempt offline agreements

Intended outcome: Report

Deadline: Tuesday W2

CLOSED

* [050] for broadcast MRB, the sn-FieldLength (for RLC) and pdcp-SN-SizeDL parameters are predefined with configuration optionally provided.
* [050] for broadcast MRB, the t-Reassembly (in RLC configuration) are predefined with configuration optionally provided. FFS on t-Reordering (in PDCP configuration, pending to RAN1’s discussion on blind retransmission).
* [050] for broadcast MRB, when enabled by the network, RoHC parameters are predefined with configuration optionally provided.
* [050] it is up to network implementation on how to configure DL RTT and Re-transmission timer of multicast DRX in case of multicast HARQ ACK/NACK feedback using UE specific PUCCH resources. FFS for case of disabled HARQ FB.
* [050] For group common PTM Multicast HARQ PUCCH resources (NACK only feedback), the same group of UEs have aligned HRAQ RTT and DL Re-Tx timer configuration. HARQ RTT timer counting starts from end of common PUCCH resource based NACK transmission (i.e. same as Unicast DRX behaviour). FFS for case of disabled HARQ FB.
* [050] FFS whether short DRX cycle is supported for multicast DRX.
* [050] FFS how UE monitors UE specific PDCCH/C-RNTI for possible PTP transmission for PTM HARQ retransmission in active time of multicast DRX, the following alternatives are on the table (one to be selected):

Option 2: the UE monitors UE specific PDCCH/C-RNTI only when drx-RetransmissionTimerDLPTM is running and PTP retransmission is expected.

Option 3: the UE monitors UE specific PDCCH/C-RNTI only during unicast DRX’s active time. Unicast DRX’s RTT timer can be started when PTP retransmission is expected.

* [050] FFS For DRX command MAC CE for multicast DRX, the following alternatives are on the table (one to be selected):

Option 2b: introduce a new DRX command MAC CE per multicast DRX operation (i.e. per G-RNTI basis)

Option 3: neither legacy DRX command MAC CE nor new DRX command MAC CE is used for multicast DRX, i.e. no DRX command MAC CE for multicast DRX.

#### 8.1.2.1 Multicast Service Continuity

Includes Mobility, PTM PTP switch, activation deactivation PTMPTP Can also include related CP enablers and assupmtions, those directly applicable..

General – Without optimizations

[R2-2110742](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110742.zip) Multicast service continuity in mobility and PTM/PTP switching Intel Corporation discussion Rel-17 NR\_MBS-Core

PTP PTM Switch and Bearer Type Change

[R2-2111048](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111048.zip) Way Forward on PDCP Status Report CMCC,CBN, QC, Huawei, HiSilicon, CATT, ZTE, OPPO, Xiaomi, Lenovo, Motorola Mobility, TCL, Sharp discussion Rel-17 NR\_MBS-Core

[R2-2110197](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110197.zip) PDCP reliability enhancement Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

Moved here

[R2-2109993](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109993.zip) Remaining issues on MRB bearer type change vivo discussion Rel-17 NR\_MBS-Core

[R2-2109589](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109589.zip) Multicast Service Continuity Aspects Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2109682](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109682.zip) PTP PTM switch and service continuity MediaTek Inc. discussion Rel-17 NR\_MBS-Core

[R2-2110890](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110890.zip) Lossless PTM/PTP switching InterDigital discussion Rel-17 NR\_MBS-Core

[R2-2110025](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110025.zip) PTM and PTP switch with MBS service continuity Apple discussion Rel-17 NR\_MBS-Core

[R2-2109850](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109850.zip) PDCP Functionality during Mobility and PTM-PTP Switch Futurewei discussion Rel-17 NR\_MBS-Core

[R2-2109849](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109849.zip) L2 ARQ by PDCP for PTM Futurewei, Qualcomm Inc., Intel, UIC, Kyocera, NEC, Samsung, Ericsson discussion Rel-17 NR\_MBS-Core

PDCP RLC functionality Other

[R2-2109949](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109949.zip) MBS Reliability Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core R2-2107690

[R2-2110676](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110676.zip) Remaining PDCP issues for MBS Xiaomi Communications discussion Rel-17 NR\_MBS-Core

[R2-2109421](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109421.zip) Discussion on Remaining Issues for PDCP and RLC in MBS          CATT  discussion       Rel-17            NR\_MBS-Core

Mobility with Non supporting Nodes

[R2-2110603](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110603.zip) Reply on MBS outstanding issues in SA WG2 Huawei, HiSilicon LS out Rel-17 NR\_MBS-Core To:SA2, RAN3

[R2-2110116](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110116.zip) Handover from a MBS supporting Node to a non-MBS supporting Node Sharp discussion

[R2-2110955](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110955.zip) Mobility with non-supporting nodes Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

Mobility SN status transfer and data forwarding

[R2-2109954](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109954.zip) MBS Mobility Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core R2-2107692

[R2-2109955](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109955.zip) Draft LS on MBS mobility Nokia LS out Rel-17 NR\_MBS-Core R2-2107693 To:RAN3

[R2-2110599](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110599.zip) Inter-cell mobility for MBS Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

Mobility CHO and DAPS

[R2-2109996](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109996.zip) CHO and DAPS for NR MBS vivo discussion Rel-17 NR\_MBS-Core

[R2-2110908](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110908.zip) Discussion on MBS with conditional handover Futurewei discussion Rel-17 NR\_MBS-Core R2-2107531

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Mobility General

[R2-2109420](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109420.zip) Open Issues on Mobility of Delivery Mode 1 CATT, CBN discussion Rel-17 NR\_MBS-Core

[R2-2109995](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109995.zip) Service continuity for NR MBS vivo discussion Rel-17 NR\_MBS-Core

[R2-2109548](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109548.zip) Mobility and Service continuity for NR Multicast MediaTek Inc. discussion Rel-17

[R2-2109902](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109902.zip) NR Multicast loss-less HO enhancements with service continuity Qualcomm Inc discussion Rel-17 NR\_MBS-Core R2-2107548

General

[R2-2110494](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110494.zip) Discussion on Multicast Service Continuity Samsung discussion

[R2-2110205](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110205.zip) Remaining issues of multicast service continuity Kyocera discussion Rel-17

[R2-2110508](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110508.zip) Service continuity for multicast mode TD Tech, Chengdu TD Tech discussion Rel-17

[R2-2110653](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110653.zip) Multicast Service Continuity ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

Withdrawn

R2-2109836 Lossless PTM/PTP switching InterDigital discussion Rel-17 NR\_MBS-Core Withdrawn

#### 8.1.2.2 Scheduling and power saving

Includes Broadcast Scheuling and Multicast Scheduling, Group scheduling, DRX, SPS.. Can also include CP enablers and assumptions, only those directly applicable.

LCID

[R2-2109590](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109590.zip) LCID space for MBS Ericsson, Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

[R2-2109684](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109684.zip) LCID related issues for multicast MediaTek Inc. discussion Rel-17 NR\_MBS-Core

RNTIs SPS configurations and related behaviors

[R2-2110492](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110492.zip) Remaining Issues on MBS Group Scheduling Samsung discussion

[R2-2109549](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109549.zip) Remaining issues of scheduling and power saving MediaTek Inc. discussion Rel-17

[R2-2110654](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110654.zip) L2 identities of NR MBS ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2109626](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109626.zip) MBS MAC layer, scheduling and power saving Intel Corporation discussion Rel-17 NR\_MBS-Core

DRX and WUS

[R2-2109517](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109517.zip) Power Saving and Scheduling Aspects for MBS Samsung discussion

[R2-2110027](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110027.zip) DRX mechanism for MBS PTM reception Apple discussion Rel-17 NR\_MBS-Core

[R2-2109901](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109901.zip) NR Multicast DRX aspects Qualcomm India Pvt Ltd discussion Rel-17 NR\_MBS-Core R2-2107545

[R2-2110409](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110409.zip) Aspects on Multicast Inactivity Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2110655](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110655.zip) DRX for NR Multicast ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2110924](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110924.zip) DL monitoring for MBS DRX ETRI discussion

BWP

[R2-2111000](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111000.zip) Keeping UE in the same active BWP during multicast session ASUSTeK discussion Rel-17 NR\_MBS-Core

PTM deactivation

[R2-2110138](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110138.zip) Discussion on PTM activation-deactivation for MBS OPPO, CMCC, ZTE, Huawei, HiSilicon, SJTU, NERCDTV, Lenovo, Motorola Mobility, Spreadtrum, TCL, Xiaomi, CATT, MediaTek, Qualcomm, Kyocera, Apple, Sharp, China Unicom, CBN, China Telecom, FGI, APT, InterDigital discussion Rel-17 NR\_MBS-Core

[R2-2110891](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110891.zip) PTM activation and deactivation InterDigital discussion Rel-17 NR\_MBS-Core

General

[R2-2110195](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110195.zip) Genaeral aspects for group scheduling Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2111050](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111050.zip) Discussion on Multicast DRX and LCID Space CMCC discussion Rel-17 NR\_MBS-Core

[R2-2111116](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111116.zip) Discussion on DRX for MBS LG Electronics Inc. discussion Rel-17 NR\_MBS-Core

[R2-2109997](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109997.zip) Further Considerations on Group Scheduling for MBS vivo discussion Rel-17 NR\_MBS-Core

[R2-2110321](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110321.zip) Further discussion on UP remaining issues Lenovo, Motorola Mobility discussion Rel-17

[R2-2110509](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110509.zip) Discussion on NR MBS scheduling TD Tech, Chengdu TD Tech discussion Rel-17

[R2-2110515](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110515.zip) Discussion on power saving for NR MBS Shanghai Jiao Tong University discussion

[R2-2110503](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110503.zip) General aspects for NR MBS TD Tech, Chengdu TD Tech discussion Rel-17

R2-2109837 PTM activation and deactivation InterDigital discussion Rel-17 NR\_MBS-Core Withdrawn

#### 8.1.2.3 Other

Initialization L2

[R2-2111114](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111114.zip) Discussion on multicast service continuity LG Electronics Inc. discussion Rel-17 NR\_MBS-Core

[R2-2110196](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110196.zip) Window initialization for RLC and PDCP Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2110493](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110493.zip) Remaining Issues on Layer-2 Aspects for MBS Samsung discussion

[R2-2111049](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111049.zip) Analysis on PDCP Window Initialization CMCC discussion Rel-17 NR\_MBS-Core

[R2-2109683](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109683.zip) Initialization of PDCP state variables MediaTek Inc. discussion Rel-17 NR\_MBS-Core

[R2-2109994](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109994.zip) PDCP and RLC initialization for MBS reception vivo discussion Rel-17 NR\_MBS-Core

[R2-2110288](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110288.zip) Initialization of PDCP/RLC state variables TCL Communication Ltd. Discussion

[R2-2110656](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110656.zip) Initialization of RLC and PDCP ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2110743](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110743.zip) Remaining issues of MBS user plane Intel Corporation discussion Rel-17 NR\_MBS-Core

[R2-2110892](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110892.zip) On RLC receiver state variables InterDigital discussion Rel-17 NR\_MBS-Core

Header Compression

[R2-2109469](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109469.zip) Discussion on Header Compressionfor MBS OPPO discussion Rel-17 NR\_MBS-Core

[R2-2109706](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109706.zip) Clarification of PTP UM RLC configuration Fujitsu discussion Rel-17 NR\_MBS-Core R2-2107657

General

[R2-2109468](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109468.zip) Discussion on open issues in MAC running CR OPPO discussion Rel-17 NR\_MBS-Core

[R2-2109900](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109900.zip) NR MBS user plane aspects Qualcomm Inc discussion Rel-17 NR\_MBS-Core

L2 configuration aspects

[R2-2109422](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109422.zip) Discussion on Scheduling and Power Saving of MBS CATT discussion Rel-17 NR\_MBS-Core

MRB ID

[R2-2111117](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111117.zip) Discussion on indication of PTM RLC entity and PTP RLC entity LG Electronics Inc. discussion Rel-17 NR\_MBS-Core

Withdrawn

R2-2109837 PTM activation and deactivation InterDigital discussion Rel-17 NR\_MBS-Core Withdrawn

R2-2109838 On RLC receiver state variables InterDigital discussion Rel-17 NR\_MBS-Core Withdrawn

### 8.1.3 L3 Centric topics

Including outcome of [Post115-e][091][MBS] Remaining control plane issues (Huawei)

[R2-2110604](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110604.zip) Report of e-mail discussion: [Post115-e][091][MBS] Remaining control plane issues Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core Late

DISCUSSION

P1 P2

- Ericsson think that ncell lists is complex for the network and could accept if this is optional for the network, but then the UE behaviour need to be specified. QC think this deosnt need to be specified.

- Ericsson think that anyway there will be interruptions.

- CATT prefer to not have FFSes no optimizations.

P5

- CATT think SIBx and MCCH are essential to continue the broadcast reception, so SIBx should not be an on demand SIB. Huawei think it can be a choice of the networtk, and it can be provided before session start.

* As a baseline, the network *may* broadcast in MCCH a list of neighbour cells providing the same broadcast MBS service(s) as provided in the current cell, same as in LTE SC-PTM
* MCCH changes due to neighbouring cell information modification will be notified using the normal MCCH modification notification.
* The RNTI scheduling MCCH is called “MCCH-RNTI”.
* The values of mcch-RepetitionPeriodAndOffset, mcch-WindowStartSlot, mcch-WindowDuration, mcch-ModificationPeriodm, as captured in the RRC running CR in R2-2108970, are confirmed.
* SIBx and SIBy can be available on-demand, same as other SIBs (no additional specification impact)
* [AT116-e][051][MBS] CP continuation (Huawei)

Scope: Treat remaining less controversial proposals from [R2-2110604](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110604.zip). Attempt offline agreements, ph2 LS out resulting from first phase.

Intended outcome: Report, ph2 Approved LS out to R1

Deadline: Tuesday W2, ph2 EOM (offline only)

[R2-2111510](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111510.zip) Report of offline discussion: [AT116-e][051][MBS] CP continuation Huawei, HiSilicon

DISCUSSION

- P11: Ericsson are concerned about MII signalling. Would like to add FFS for possible network control.

* RAN2 assumes the UE should be allowed to prioritize a frequency in case this frequency is signaled in SIBy for the UEs service/session of interest (e.g. identified by an additional ID such as SAI) regardless of whether this frequency is included in the USD for this service. This can be revisited once USD definition becomes clearer, if issue is identified
* Confirm that the UE may initiate MII procedure upon successful connection establishment, upon entering or leaving the broadcast service area, upon MBS broadcast session start or stop, upon change of interest, upon change of priority between MBS broadcast reception and unicast reception, upon change to a PCell broadcasting SIBx1. FFS other triggers. FFS network control.
* Introduce definitions of broadcast MRB and multicast MRB in the specifications.
* An extensible IE is not introduced instead of TMGI within PagingGroupList
* When the conditions for frequency prioritization are no longer met, the UE should stop prioritizing the frequency of this cell (e.g. when the cell reselected by the UE due to frequency prioritization for MBS stops providing SIBx etc.). FFS whether there is additional TS impact.
* RAN2 will not specify a mechanism for the UE in RRC IDLE/INACTIVE which joined a multicast session to prioritize a certain frequency for group paging monitoring.
* During MII, the UE should only report the set of MBS frequencies of interest the UE is capable to simultaneously receive, i.e. the UE supports at least one band combination allowing it to receive the indicated set of frequencies.
* When evaluating which frequencies it can receive simultaneously for reporting in MII, the UE does not take into account the serving frequencies that are currently configured i.e. it only considers MBS frequencies it is interested to receive regardless of whether these can be received together with the current serving cells or not.
* Confirm that the same PTM DRX configuration parameters can be applied to multiple G-RNTIs.
* Allow RRC signalling to configure the same DRX configuration instance to multiple G-RNTIs.
* In case mtch-schedulingInfo is absent for a G-RNTI (i.e. no PTM DRX), the UE should monitor for PDCCH scrambled with G-RNTI in any slot according to the search space configured for MTCH.
* From RAN2 point of view, the UE may receive MBS broadcast service from SCell in intra-PLMN case and if supported this may be a separate UE capability. Send an LS to RAN1 to ask to check the feasibility of MBS broadcast reception on SCell.
* If supported by the UE implementation, the idle/inactive UE may receive MBS broadcast service from non-serving cell (no network impact).
* From RAN2 point of view, the connected UE may if supported receive MBS broadcast service from non-serving cell in intra-PLMN case, under the condition this does not have any impact to operation on serving cell(s). This may be a separate UE capability. Send an LS to RAN1 to ask to check the feasibility.

Continue offline discussion LS out to R1

#### 8.1.3.1 Broadcast Service Continuity

Frequency aspects, Impact to cell selection/reseelction (e.g. frequency prioritization). Enablers and assumptions for Broadcast reception in Connected Mode, interest indication, BWP assuptions/requirements for this particular case.

Frequency prioritization and enabling mechanisms

[R2-2109423](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109423.zip) Open Issues related to the running 38.304 CR for MBS CATT, CBN discussion Rel-17 NR\_MBS-Core

[R2-2110411](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110411.zip) Open issues in Broadcast Service Continuity Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2111051](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111051.zip) Discussion on MII issues based on SA3 Reply LS CMCC discussion Rel-17 NR\_MBS-Core

Moved here from 8.1.2

[R2-2110552](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110552.zip) Broadcast Service Continuity Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

[R2-2110744](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110744.zip) Broadcast service continuity Intel Corporation discussion Rel-17 NR\_MBS-Core

[R2-2110600](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110600.zip) MBS service continuity for delivery mode 2 Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2110206](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110206.zip) Remaining issues of broadcast service continuity and control plane aspects Kyocera discussion Rel-17 R2-2107999

[R2-2109518](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109518.zip) Service Continuity for Broadcast Samsung discussion

[R2-2109998](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109998.zip) Discussion on Broadcast Service Continuity vivo discussion Rel-17 NR\_MBS-Core

[R2-2110657](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110657.zip) Neighboring cell info for MBS ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2110377](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110377.zip) MBS service continuity LG Electronics Inc. discussion Rel-17

Interest indication more details

[R2-2110346](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110346.zip) MBS interest indication details Sony discussion Rel-17 NR\_MBS-Core

[R2-2109424](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109424.zip) Open Issues on MBS interest indication CATT, CBN discussion Rel-17 NR\_MBS-Core

[R2-2109464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109464.zip) Discussion on MBS interesting indication for delivery mode 2 OPPO discussion Rel-17 NR\_MBS-Core

[R2-2110677](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110677.zip) Security analysis on the MBS interest information Xiaomi Communications discussion Rel-17 NR\_MBS-Core

Other

[R2-2109466](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109466.zip) Discussion on MBS service continuity for delivery mode 2 OPPO discussion Rel-17 NR\_MBS-Core

[R2-2110510](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110510.zip) Service continuity for broadcast mode TD Tech, Chengdu TD Tech discussion

[R2-2111128](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111128.zip) Other L2 centric topics TD Tech, Chengdu TD Tech discussion

Further Optimizations

[R2-2111137](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111137.zip) CQI audit procedure for broadcast mode Chengdu TD Tech, TD Tech discussion Rel-17

Moved here

#### 8.1.3.2 Notifications

Notification for Multicast activation. Change Notifications MCCH etc for broadcast.

Multicast activation notification

[R2-2109425](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109425.zip) Open Issues Related to Multicast Activation Notification CATT discussion Rel-17

[R2-2109467](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109467.zip) Group notification and unicast paging for MBS activation OPPO discussion Rel-17 NR\_MBS-Core

[R2-2110410](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110410.zip) Aspects on Multicast Notifications Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2110553](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110553.zip) Multicast notification and RACH Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

[R2-2110133](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110133.zip) Discussion on multicast activation notification Spreadtrum Communications discussion Rel-17

[R2-2110207](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110207.zip) Open issues of group notifications in NR MBS Kyocera discussion Rel-17

[R2-2110286](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110286.zip) Indication for Multicast Activation notification TCL Communication Ltd. Discussion

[R2-2110379](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110379.zip) Remaining issues on group paging LG Electronics Inc. discussion Rel-17

[R2-2110675](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110675.zip) Remaining issues of the multicast notification Xiaomi Communications discussion Rel-17 NR\_MBS-Core

[R2-2110028](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110028.zip) Access Control for the MBS Service Reception Apple discussion Rel-17 NR\_MBS-Core

MCCH change notification (for broadcast)

[R2-2110408](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110408.zip) Aspects on Broadcast Notifications Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2110378](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110378.zip) MCCH information acquisition LG Electronics Inc. discussion Rel-17

[R2-2111052](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111052.zip) Remaining Issue on MBS Notification CMCC discussion Rel-17 NR\_MBS-Core

[R2-2110907](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110907.zip) Clarification on MCCH change notification via DCI Futurewei discussion Rel-17 NR\_MBS-Core

[R2-2110389](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110389.zip) Discussion on MCCH change notification MediaTek Inc. discussion Rel-17 NR\_MBS-Core

General

[R2-2109519](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109519.zip) Notifications for Multicast and Broadcast Samsung discussion

[R2-2109999](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109999.zip) Discussion on MBS Notification vivo discussion Rel-17 NR\_MBS-Core

[R2-2110511](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110511.zip) Discussion on notifications for NR MBS TD Tech, Chengdu TD Tech discussion Rel-17

[R2-2110601](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110601.zip) Notifications for Multicast and Broadcast Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2110745](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110745.zip) Multicast Activation Notification and MCCH Change Notification Intel Corporation discussion Rel-17 NR\_MBS-Core

#### 8.1.3.3 Other

MCCH contents and details. General RRC aspects. BWP. UE capabilities.

DC CA

Support on Scell, support DC?

[R2-2110674](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110674.zip) Discussion on MBS support on MRDC Xiaomi Communications discussion Rel-17 NR\_MBS-Core R2-2108796

[R2-2111054](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111054.zip) Support of MBS in CA CMCC discussion Rel-17 NR\_MBS-Core

[R2-2110322](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110322.zip) Discussion multicast service reception in Scell Lenovo, Motorola Mobility discussion Rel-17

MCCH MTCH configuration

[R2-2110602](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110602.zip) Discussion on RRC parameters for MCCH and MTCH Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2110658](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110658.zip) PDCP reordering function for Broadcast ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2111053](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111053.zip) Remaining Issues on RLC/PDCP Configuration in Mode 2 CMCC discussion Rel-17 NR\_MBS-Core

[R2-2109550](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109550.zip) MCCH Configuration MediaTek Inc. discussion Rel-17

General

[R2-2109426](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109426.zip) Discussion on General RRC Aspects CATT discussion Rel-17

[R2-2109538](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109538.zip) MCCH Contents and RRC Aspects Samsung discussion

[R2-2110746](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110746.zip) Miscellaneous MBS L3 open issues Intel Corporation discussion Rel-17 NR\_MBS-Core

[R2-2110029](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110029.zip) MBS reception in CONNECTED state Apple discussion Rel-17 NR\_MBS-Core

[R2-2110412](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110412.zip) Other aspects in MBS Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2111134](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111134.zip) Other L3 centric topics TD Tech, Chengdu TD Tech discussion Rel-17

Further optimization

[R2-2109950](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109950.zip) Miscellaneous Aspects of MBS Provisioning Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core R2-2107691

R2-2110514 CQI audit procedure for delivery mode 2 Chengdu TD Tech, TD Tech discussion Rel-17 Late

L1

[R2-2109465](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109465.zip) Discussion on beam sweeping transmission for delivery mode 2 OPPO discussion Rel-17 NR\_MBS-Core

[R2-2110347](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110347.zip) MBS BWP UE capability and MBS resources Sony discussion Rel-17 NR\_MBS-Core R2-2108049

## 8.2 MR DC/CA further enhancements

(LTE\_NR\_DC\_enh2-Core; leading WG: RAN2; REL-17; WID: RP-201040)

Time budget: 1 TU

Tdoc Limitation: 5 tdocs (note that email discussion outcome documents or rapporteur inputs do not count against Tdoc limitations)

Email max expectation: 4 threads

No documents should be submitted to 8.2. Please submit to.8.2.x

Contributions should illustrate the Stage-3 details of the proposals (e.g. in an Annex containing TP against the running CRs).

### 8.2.1 Organizational, Requirements and Scope

Including LSs and any rapporteur inputs (which do not count against Tdoc limits).

[R2-2109365](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109365.zip) Reply LS on temporary RS for efficient SCell activation in NR CA (R4-2115370; contact: Huawei) RAN4 LS in Rel-17 LTE\_NR\_DC\_enh2 To:RAN1, RAN2

[R2-2109368](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109368.zip) LS on efficient activation/de-activation mechanism for one SCG R4-2115440; contact: Huawei) RAN4 LS in Rel-17 LTE\_NR\_DC\_enh2 To:RAN2

[R2-2109871](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109871.zip) Report of e-mail discussion on inter-node message design Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109872](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109872.zip) Update of inter-node messages for CPAC Ericsson draftCR Rel-17 38.331 16.6.0 LTE\_NR\_DC\_enh2-Core

[R2-2109873](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109873.zip) Report of e-mail discussion on support of A3 A5 events for inter-SN CPC Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109874](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109874.zip) A3 and A5 events for PSCell Ericsson draftCR Rel-17 38.331 16.6.0 LTE\_NR\_DC\_enh2-Core

[R2-2109892](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109892.zip) [Post115-e][215][R17 DCCA] Running 37.340 CR for SCG deactivation ZTE Corporation, Sanechips draftCR Rel-17 37.340 16.7.0 LTE\_NR\_DC\_enh2

[R2-2110001](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110001.zip) Inter-MN RRC resume without SN change - RAN2 aspects Qualcomm Incorporated, Nokia, Nokia Shanghai Bell discussion Rel-17 Withdrawn

[R2-2110090](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110090.zip) Discussion on LS reply for SCG deactivation and MAC CE based SCG deactivation Apple discussion Rel-17 LTE\_NR\_DC\_enh2

[R2-2110091](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110091.zip) [Draft] LS reply for SCG deactivation Apple LS out Rel-17 LTE\_NR\_DC\_enh2 To:RAN4

[R2-2110427](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110427.zip) Introduction of CPA and inter-SN CPC CATT draftCR Rel-17 37.340 16.7.0 B LTE\_NR\_DC\_enh2-Core

[R2-2110428](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110428.zip) Introduction of CPA and inter-SN CPC CATT draftCR Rel-17 38.331 16.6.0 B LTE\_NR\_DC\_enh2-Core

[R2-2110429](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110429.zip) Introduction of CPA and inter-SN CPC CATT draftCR Rel-17 36.331 16.6.0 B LTE\_NR\_DC\_enh2-Core

[R2-2110504](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110504.zip) Running CR to 38.321 for SCG deactivation vivo draftCR Rel-17 38.321 16.6.0 B LTE\_NR\_DC\_enh2-Core

[R2-2110866](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110866.zip) [Post115-e][212][R17 DCCA] Running NR/LTE RRCs CR for SCG deactivation (Huawei) Huawei, HiSilicon discussion LTE\_NR\_DC\_enh2-Core Late

[R2-2110867](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110867.zip) Introduction of SCG deactivation Huawei, HiSilicon draftCR Rel-17 38.331 16.6.0 B LTE\_NR\_DC\_enh2-Core Late

[R2-2110868](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110868.zip) Introduction of SCG deactivation Huawei, HiSilicon draftCR Rel-17 36.331 16.6.0 B LTE\_NR\_DC\_enh2-Core Late

### 8.2.2 Efficient activation / deactivation mechanism for one SCG and SCells

No documents should be submitted to 8.2.2. Please submit to.8.2.2.x

#### 8.2.2.1 Deactivation of SCG

Including discussion on UP details of SCG deactivation (e.g. PDCP/MAC impacts, bearer handling) - UP aspects will be prioritized in this meeting.

Including whether the UE performs RACH at PSCell change

[R2-2109539](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109539.zip) Discussion on SCG deactivation NTT DOCOMO, INC. discussion Rel-17

[R2-2109707](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109707.zip) PDCP re-establishment during SCG deactivation Fujitsu discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109708](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109708.zip) QoS flow remapping during SCG deactivation Fujitsu discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2109839 Deactivation of SCG InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core Withdrawn

[R2-2109942](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109942.zip) UP issues for SCG deactivation Samsung discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109943](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109943.zip) DC power sharing for deactivated SCG Samsung discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110013](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110013.zip) Deactivation of SCG Qualcomm Incorporated discussion Rel-17

[R2-2110082](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110082.zip) SCG bearer handling for the SCG deactivation Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110212](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110212.zip) Mobility for deactivated SCG NTT DOCOMO INC. discussion Rel-17 R2-2107753

[R2-2110296](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110296.zip) Deactivation of SCG LG Electronics discussion Rel-17

[R2-2110323](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110323.zip) Miscellaneous issues on SCG deactivation Lenovo, Motorola Mobility discussion Rel-17

[R2-2110430](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110430.zip) Discussion on Deactivation of SCG CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110516](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110516.zip) Efficient SCG deactivation Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2110554](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110554.zip) Deactivation of SCG Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110870](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110870.zip) UP handling while SCG is deactivated Huawei, HiSilicon discussion LTE\_NR\_DC\_enh2-Core

[R2-2110871](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110871.zip) Remaining issues on deactivation of SCG Huawei, HiSilicon discussion LTE\_NR\_DC\_enh2-Core

[R2-2110893](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110893.zip) Deactivation of SCG InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111175](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111175.zip) UE assistance information for UE trigered SCG deactivation Sharp discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2108678

[R2-2111176](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111176.zip) reconfigurationwithsync for SCG change with SCG deactivation Sharp discussion Rel-17 LTE\_NR\_DC\_enh2-Core

#### 8.2.2.2 UE measurements and reporting in deactivated SCG

Including discussion on details of BFD and RLM for deactivated SCG (e.g. while the SCG is deactivated, does UE report S-RLF/BFD immediately upon detection according to existing procedures or is there a different behaviour?)

Including discussion on RRM measurements when SCG is deactivated (e.g. is there need to have anything different than currently for activated SCG?)

[R2-2109471](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109471.zip) UE measurements and reporting in SCG deactivation OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2109840 Measurements while the SCG is deactivated InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core Withdrawn

[R2-2109891](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109891.zip) Discussion on UE behaviour when SCG is deactivated ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2

[R2-2110000](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110000.zip) UE measurements and reporting in deactivated SCG Qualcomm Incorporated discussion Rel-17

[R2-2110092](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110092.zip) Simple MCG recovery procedure using deactivated SCG for Rel-17 Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110324](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110324.zip) Discussion on RLF and BFD in deactivated SCG Lenovo, Motorola Mobility discussion Rel-17

[R2-2110431](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110431.zip) UE Behavior in Deactivated SCG CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110517](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110517.zip) UE measurements, mobility and suspend/resume in deactivated SCG Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2110555](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110555.zip) Measurements of deactivated SCG Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110660](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110660.zip) Measurements when configured with RACH-less activation NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110872](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110872.zip) UE measurement and reporting while the SCG is deactivated Huawei, HiSilicon discussion LTE\_NR\_DC\_enh2-Core

[R2-2110894](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110894.zip) Measurements while the SCG is deactivated InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111009](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111009.zip) PSCell change while SCG is deactivated DENSO CORPORATION discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111014](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111014.zip) Remaining issues for UE behaviour in deactivated SCG SHARP Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2108649

[R2-2111017](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111017.zip) UE Measurements in SCG Deactivation LG Electronics discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2108721

[R2-2111094](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111094.zip) UE behavior in deactivated SCG vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111192](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111192.zip) Further discussion on TCI State indication in RRC MediaTek Inc. discussion

#### 8.2.2.3 Activation of deactivated SCG

Including outcome of [Post115-e][219][R17 DCCA] UE-initiated SCG activation (Huawei)

Including discussion on UP details of SCG activation (PDCP/MAC impacts, bearer handling, ...) - UP aspects will be prioritized in this meeting.

Including discussion on SCG activation details, e.g. RACH resource configuration and how network indicates whether random access is used, whether to support configuring RACH resources to UE before SCG activation (with Stage-3 TP to illustrate the impacts)

[R2-2109470](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109470.zip) Discussion on SCG deactivation for RRC\_INACTIVE UE OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109541](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109541.zip) Discussion on SCG activation NTT DOCOMO, INC. discussion Rel-17

[R2-2109656](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109656.zip) Open issues for activation of deactivated SCG OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2109841 Activation of SCG InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core Withdrawn

[R2-2109944](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109944.zip) PHR issues for SCG activation Samsung discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110015](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110015.zip) Activation of deactivated SCG Qualcomm Incorporated discussion Rel-17

[R2-2110122](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110122.zip) Discussion on activation of SCG Spreadtrum Communications discussion Rel-17

[R2-2110325](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110325.zip) Discussion on SCG activation Lenovo, Motorola Mobility discussion Rel-17

[R2-2110432](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110432.zip) Considerations on Activation of Deactivated SCG CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110518](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110518.zip) Efficient activation of deactivated SCG Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2110661](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110661.zip) UE request for SCG activation NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110869](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110869.zip) [Post115-e][219][R17 DCCA] UE-initiated SCG activation (Huawei) Huawei, HiSilicon discussion LTE\_NR\_DC\_enh2-Core Late

[R2-2110873](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110873.zip) Reply LS on efficient activation/de-activation mechanism for one SCG Huawei, HiSilicon LS out LTE\_NR\_DC\_enh2-Core To:RAN4

[R2-2110895](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110895.zip) Activation of SCG InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110909](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110909.zip) Discussion on UE initiated SCG fast activation Futurewei discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111015](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111015.zip) Discussion for bearer handling in deactivated SCG SHARP Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111018](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111018.zip) Activation of SCG LG Electronics discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2108722

[R2-2111019](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111019.zip) TP for dedicated RACH resource in SCG deactivation LG Electronics discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111077](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111077.zip) Considerations for fast MCG link recovery with deactivated SCG CMCC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111181](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111181.zip) Discussion on UE initiated SCG activation SHARP Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2108728

[R2-2110506](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110506.zip) Activation of a deactivated SCG vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

*(moved from 8.2.3)*

#### 8.2.2.4 Other aspects of SCG activation/deactivation

Including essential parts of SCG activation/deactivation that do not fit under other AIs.

This agenda item may be deprioritized in this meeting .

### 8.2.3 Conditional PSCell change / addition

No documents should be submitted to 8.2.3. Please submit to.8.2.3.x

#### 8.2.3.1 CPAC procedures from network perspective

Including discussion on remaining details of network coordination for CPAC preparation/exceution (e.g. whether T-SN is informed on the execution conditions, whether the execution conditions can be updated after the T-SN response , coordination for measurement for gap configuration at source SN configuration update after T-SN response and before CPC configuration to the UE).

Including decision on working assumption for solution 2

Including outcome of [Post115-e][216][R17 DCCA] Inter-node message design (Ericsson)

[R2-2109658](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109658.zip) Discussion on execution condition of CPAC NTT DOCOMO INC. discussion

[R2-2109675](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109675.zip) Discussion on association of execution condition and SN configuration Intel Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109734](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109734.zip) Discussion on CPAC procedures from NW perspective vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109869](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109869.zip) Network procedures and signalling for CPAC Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110014](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110014.zip) CPAC procedures and CHO with MR-DC Qualcomm Incorporated discussion Rel-17

[R2-2110326](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110326.zip) Discussion on CPAC from NW perspective Lenovo, Motorola Mobility discussion Rel-17

[R2-2110433](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110433.zip) Discussion on CPAC Procedure from NW Perspective CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110519](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110519.zip) Remaining issues on SN initiated inter-SN CPC ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110520](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110520.zip) Further consideration on CPAC procedure ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110615](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110615.zip) Resolving open points of Rel-17 CPAC Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111085](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111085.zip) CPAC procedure for SCG update Samsung Electronics discussion LTE\_NR\_DC\_enh2-Core

#### 8.2.3.2 CPAC procedures from UE perspective

Including discussion on UE measurements for CPAC purposes (e.g. details of measurement events).

Including outcome of [Post115-e][217][R17 DCCA] Support of A3/A5 for inter-SN CPC (Ericsson)

[R2-2109735](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109735.zip) Discussion on CPAC procedures from UE perspective vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109870](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109870.zip) UE procedures and signalling for CPAC Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110085](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110085.zip) Discussion on CPAC open issues Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110874](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110874.zip) Remaining issue of CPAC Huawei, HiSilicon discussion LTE\_NR\_DC\_enh2-Core

[R2-2110935](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110935.zip) Enhancements for CPAC LG Electronics discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2108723

#### 8.2.3.3 Other CPAC aspects

This agenda item may use a summary document (decision to be made based on submitted tdocs).

Including discussion on CPAC failure handling (e.g. will we have CHO recovery - like procedure for CPAC?) and CPAC co-existence with CHO (e.g. what, if anything, is needed to enable using both CPAC and CHO?)

[R2-2111301](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111301.zip) Summary of agenda 8.2.3.3: Other CPAC aspects (DCCA) Interdigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

[R2-2109762](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109762.zip) Discussion on failure handling for CPAC in NR China Telecom discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2109842 Coexistence of CHO and CPC InterDigital, Nokia, Nokia Shanghai Bell,ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core Withdrawn

[R2-2110282](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110282.zip) SCG RLF handling in case CPC is configured ITRI discussion LTE\_NR\_DC\_enh2-Core R2-2105518

[R2-2110327](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110327.zip) Miscellaneous issues on CPAC Lenovo, Motorola Mobility discussion Rel-17

[R2-2110434](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110434.zip) Discussion on CPAC Failure Handling and CPAC Co-existence with CHO CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110521](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110521.zip) Discussion on coexistence of CHO and CPAC ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110616](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110616.zip) Final views on CPAC Procedures and Other Functionalities Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2107524

[R2-2110662](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110662.zip) CPA with SN-terminated MCG bearer configuration NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110663](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110663.zip) Co-existence of CHO and CPAC NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110896](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110896.zip) Coexistence of CHO and CPC InterDigital, Nokia, Nokia Shanghai Bell,ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110998](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110998.zip) Failure handling of Conditional PSCell Addition DENSO CORPORATION discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2107871

[R2-2111078](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111078.zip) Combination of CPAC and CHO CMCC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111082](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111082.zip) Other CPAC issues Samsung Electronics discussion LTE\_NR\_DC\_enh2-Core

### 8.2.4 Temporary RS for SCell activation

Including outcome of [Post115-e][218][R17 DCCA] TRS-based SCell activation (OPPO)

[R2-2109472](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109472.zip) Discussion on TRS activation for fast SCell activation OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109473](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109473.zip) Email report of [Post115-e][218][R17 DCCA] TRS-based SCell activation (OPPO) OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109657](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109657.zip) Introduction of TRS based SCell activation OPPO CR Rel-17 38.321 16.6.0 1164 - B LTE\_NR\_DC\_enh2-Core

[R2-2110505](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110505.zip) Discussion on Temporary RS activation for fast SCell activation vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core Revised

[R2-2110556](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110556.zip) Temporary RS activation Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2110875](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110875.zip) Temporary RS based fast SCell activation Huawei, HiSilicon discussion LTE\_NR\_DC\_enh2-Core

[R2-2110910](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110910.zip) Discussion on support of Temporary RS for SCell activation Futurewei discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2111201](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111201.zip) Discussion on Temporary RS activation for fast SCell activation vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core [R2-2110505](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110505.zip)

### 8.2.5 UE capabilities

Including discussion on RAN2 aspects of UE capabilities for SCG deactivation, CPAC and temporary RS.

This agenda item may use a summary document (decision to be made based on submitted tdocs).

This agenda item may be deprioritized in this meeting (apart from the email discussion outcome).

Including outcome of [Post115-e][214][R17 DCCA] UE capabilities (Intel)

[R2-2109676](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109676.zip) Report of email discussion [Post115-e][214][R17 DCCA] Capabilities (Intel) Intel Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2109677](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109677.zip) draft 331 CR for DCCA UE capabilities Intel Corporation draftCR Rel-17 38.331 16.6.0 B LTE\_NR\_DC\_enh2-Core

[R2-2109678](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109678.zip) draft 306 CR for DCCA UE capabilities Intel Corporation draftCR Rel-17 38.306 16.6.0 B LTE\_NR\_DC\_enh2-Core

## 8.3 Multi SIM

(LTE\_NR\_MUSIM-Core; leading WG: RAN2; REL-17; WID: RP-212610)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs (note that email discussion outcome documents or rapporteur inputs do not count against Tdoc limitations)

Email max expectation: 4 threads

Contributions should illustrate the Stage-3 details of the proposals (e.g. in an Annex containing TP against the running CRs).

### 8.3.1 Organizational, Requirements and Scope

Including LSs and any rapporteur input.

[R2-2109304](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109304.zip) Reply LS on NAS-based busy indication (C1-214917; contact: vivo) CT1 LS in Rel-17 LTE\_NR\_MUSIM-Core, MUSIM To:RAN2 Cc:RAN3, SA3, SA2

[R2-2109374](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109374.zip) Reply LS on Network Switching for MUSIM (S2-2106673; contact: Qualcomm) SA2 LS in Rel-17 LTE\_NR\_MUSIM To:RAN2 Cc:RAN3, CT1

[R2-2110390](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110390.zip) Running NR RRC CR for MUSIM vivo draftCR Rel-17 38.331 16.6.0 B LTE\_NR\_MUSIM-Core

[R2-2110391](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110391.zip) Reply LS on NAS-based busy indication vivo LS out Rel-17 LTE\_NR\_MUSIM-Core To:CT1 Cc:RAN3, SA3, SA2

[R2-2110789](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110789.zip) Running CR to 36300 for Multi-USIM devices support Ericsson CR Rel-17 36.300 16.6.0 1349 - B LTE\_NR\_MUSIM-Core

[R2-2110790](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110790.zip) Running CR to 38300 for Multi-USIM devices support Ericsson CR Rel-17 38.300 16.7.0 0396 - B LTE\_NR\_MUSIM-Core

[R2-2111096](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111096.zip) Running CR to 36.304 for Multi-USIM devices China Telecommunications draftCR Rel-16 36.304 16.5.0 LTE\_NR\_MUSIM-Core

[R2-2111179](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111179.zip) Running LTE RRC CR for MUSIM Samsung Electronics Co., Ltd draftCR Rel-17 36.331 16.6.0 LTE\_NR\_MUSIM-Core

### 8.3.2 Paging collision avoidance

This agenda item may use a summary document (decision to be made based on submitted tdocs).

Including discussion on RAN2 aspects of paging collision avoidance

[R2-2111302](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111302.zip) Summary of agenda 8.3.2: Paging Collision Avoidance (MUSIM) vivo discussion Rel-17 LTE\_NR\_MUSIM-Core Late

[R2-2109407](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109407.zip) Leftover Issues for Paging Collision Avoidance OPPO discussion LTE\_NR\_MUSIM-Core

[R2-2109690](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109690.zip) Remaining Issues on the Paging Collision ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2109714](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109714.zip) Draft LS on the alternative IMSI ZTE Corporation, Sanechips LS out Rel-17 LTE\_NR\_MUSIM-Core To:CT1,SA2

[R2-2109721](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109721.zip) Definition and solution for paging collision, SI change Lenovo, Motorola Mobility discussion LTE\_NR\_MUSIM-Core

[R2-2109766](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109766.zip) Paging Collision Avoidance Open Issues Huawei, HiSilicon discussion Rel-17

[R2-2109802](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109802.zip) Considerations on Paging Collision Avoidance Samsung discussion

[R2-2110190](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110190.zip) Way forward on paging collision Qualcomm Incorporated discussion

[R2-2110294](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110294.zip) Discussion on misalignment on EPS paging collision avoidance among SA2, CT1 and RAN2 China Telecommunications discussion

[R2-2110392](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110392.zip) Paging collision avoidance vivo discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2111020](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111020.zip) Considerations on Paging Collision LG Electronics discussion Rel-17 LTE\_NR\_MUSIM-Core R2-2108724

### 8.3.3 UE notification on network switching for multi-SIM

Including discussion on remaining details for periodic/aperiodic gaps, e.g. MUSIM gap support for MR-DC,how the gaps are released (i.e. implicitly or explicitly), need for additional gap assistance information (e.g. gap purpose).

Including discussion on MUSIM assistance information from UE to network (e.g. UAI or other signalling, whether to reuse some parts of existing signalling, possibility of "early return")

Including remaining details of "configured time" (e.g. how to configure UE to always wait for network response,)

[R2-2109408](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109408.zip) Leftover Issues for Busy Indication OPPO discussion LTE\_NR\_MUSIM-Core

[R2-2109409](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109409.zip) Discussion on Remaining Details for Periodic and Aperiodic Gaps OPPO discussion LTE\_NR\_MUSIM-Core

[R2-2109410](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109410.zip) Discussion on MUSIM Assistance Information for Leaving Case OPPO discussion LTE\_NR\_MUSIM-Core

[R2-2109624](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109624.zip) Remaining issues on network switching Intel Corporation discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2109688](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109688.zip) Further Consideration on the Remaining Issues of Scheduling Gap ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2109689](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109689.zip) Consideration on the Remaining Issues of Switching Procedure ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2109788](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109788.zip) Further discussion on network switching for MUSIM Samsung discussion

[R2-2110048](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110048.zip) Aspects of MUSIM NW Switching and Scheduling Gaps Apple discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110117](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110117.zip) RAN Initiated Paging in MUSIM Sharp discussion

[R2-2110118](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110118.zip) RNAU and BUSY indication in MUSIM Sharp discussion

[R2-2110129](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110129.zip) Busy indication transmission Spreadtrum Communications discussion Rel-17

[R2-2110142](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110142.zip) Further analysis on switching notification without leaving RRC connection Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2110143](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110143.zip) On remaining issues for switching notification for leaving RRC connection Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2110144](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110144.zip) Analysis on signalling procedures and messages for MUSI switching notification Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2110168](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110168.zip) Further details of MUSIM Gaps Qualcomm Incorporated discussion

[R2-2110188](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110188.zip) Remaining issues of network switching for Multi-SIM Qualcomm Incorporated discussion

[R2-2110189](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110189.zip) Remaining Issues for MUSIM Network Switching Charter Communications, Inc discussion

[R2-2110253](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110253.zip) Open issues on scheduling gap for network switching NEC discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110332](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110332.zip) Switching notification and busy indication Lenovo, Motorola Mobility discussion Rel-17

[R2-2110393](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110393.zip) Discussion on MUSIM Gap Configuration and switching message vivo discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110542](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110542.zip) Disucssion on the remaining issues for NW switching Huawei, HiSilicon discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110775](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110775.zip) Discussion on switchover procedure without leaving RRC\_CONNECTED state Ericsson discussion

[R2-2110781](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110781.zip) Discussion on switchover procedure for leaving RRC\_CONNECTED state Ericsson discussion

[R2-2111001](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111001.zip) Interaction between NAS and AS for network switching ASUSTeK discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2111021](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111021.zip) Scheduling Gap Handling LG Electronics discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2111022](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111022.zip) Paging filtering when AS-based leaving LG Electronics discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2111023](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111023.zip) Problems when NAS based Busy Indication LG Electronics discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2111103](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111103.zip) Analysis on AS-based solution and NAS-based solution China Telecommunications discussion

[R2-2111180](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111180.zip) UE Notification on Network Switching for Multi-SIM Rakuten Mobile, Inc discussion Rel-17

[R2-2111186](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111186.zip) Signalling design on busy indication procedure DENSO CORPORATION discussion LTE\_NR\_MUSIM-Core R2-2108804

[R2-2111197](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111197.zip) Further details on network switching notification MediaTek Inc. discussion

### 8.3.4 Paging with service indication

Including details of the paging cause value support and, if necessary, discussion on additional feedback to SA2

Including outcome of [Post115-e][236][MUSIM] Paging with service indication (Huawei)

[R2-2109755](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109755.zip) Draft CR to TS36.331 to support paging with service indication for MUSIM Huawei, HiSilicon draftCR Rel-17 36.331 16.6.0 LTE\_NR\_MUSIM-Core

[R2-2109756](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109756.zip) Draft CR to TS38.331 to support paging with service indication for MUSIM Huawei, HiSilicon draftCR Rel-17 38.331 16.6.0 LTE\_NR\_MUSIM-Core

[R2-2109761](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109761.zip) Report of [Post115-e][236][MUSIM] Paging with service indication Huawei, HiSilicon discussion Rel-17

[R2-2109767](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109767.zip) Discussion on the paging with service indication Huawei, HiSilicon discussion Rel-17

[R2-2110128](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110128.zip) Supporting of Paging Cause Solution detection Spreadtrum Communications discussion Rel-17

[R2-2110137](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110137.zip) Discussion on the transmission of paging cause Spreadtrum Communications discussion Rel-17

[R2-2110394](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110394.zip) Remaining issues for paging with service indication vivo discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110776](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110776.zip) Introduction of a Paging cause indication Ericsson discussion

[R2-2110947](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110947.zip) Discussion on paging service indication for MUSIM Futurewei Technologies discussion R2-2108549

[R2-2111171](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111171.zip) Discussion on support of paging cause for MUSIM UE Samsung Electronics Co., Ltd discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2111194](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111194.zip) Paging with service indication MediaTek Inc. discussion Rel-17 LTE\_NR\_MUSIM-Core R2-2108738

### 8.3.5 UE capabilities and other aspects

This agenda item may use a summary document (decision to be made based on submitted tdocs).

This agenda item may be deprioritized in this meeting.

Including discussion on UE capabilities and any other essential aspects of MUSIM that need to be resolved during Rel-17.

[R2-2111303](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111303.zip) Summary of agenda 8.3.5: UE capabilities (MUSIM) Ericsson discussion Rel-17 LTE\_NR\_MUSIM-Core Late

[R2-2109625](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109625.zip) UE capabilities for MU-SIM Intel Corporation discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110049](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110049.zip) Aspects of MUSIM UE Capability Apple discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110050](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110050.zip) Additional issues related to MUSIM Apple discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110145](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110145.zip) On MUSIM UE capability and additional switching scenario Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2110150](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110150.zip) Discussion on UE capability for MUSIM Samsung discussion

[R2-2110395](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110395.zip) Multi-USIM related UE capabilities vivo discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110543](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110543.zip) Discussion on UE capability for MUSIM Huawei, HiSilicon discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2110788](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110788.zip) UE capabilities for Multi-USIM Ericsson discussion

## 8.4 NR IAB enhancements

(NR\_IAB\_enh-Core; leading WG: RAN2; REL-17; WID: RP-211548)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 3-4 threads

RP 92e: DAPS-like solutions to be deprioritized.

RP 93e: Enhancements to improve topology-wide fairness and multi-hop latency to be deprioritized. RAN2-led efforts on enhancements to LCG-range extension, RLF indications and local rerouting to continue.

### 8.4.1 Organizational

Including work plan and any other rapporteur input.

LS in

[R2-2109320](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109320.zip) Reply LS on Inter-donor migration (R1-2108529; contact: Huawei) RAN1 LS in Rel-17 NR\_IAB\_enh-Core To:RAN3, RAN4 Cc:RAN2

[R2-2109350](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109350.zip) LS on BAP- and RRC-related agreements from RAN3#113-e (R3-214476; contact: Ericsson) RAN3 LS in Rel-17 NR\_IAB\_enh-Core To:RAN2

[R2-2109363](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109363.zip) Reply LS on inter-donor migration (R4-2115354; contact: ZTE) RAN4 LS in Rel-17 NR\_IAB\_enh-Core To:RAN3 Cc:RAN1, RAN2

Work Plan

[R2-2109939](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109939.zip) Updated Rel-17 IAB Workplan Qualcomm Incorporated, Samsung (WI rapporteurs) Work Plan Rel-17 NR\_IAB\_enh R2-2107169

CRs

[R2-2110289](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110289.zip) Running CR to 37.340 for eIAB vivo draftCR Rel-17 37.340 16.7.0 NR\_IAB\_enh-Core

[R2-2110453](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110453.zip) Running CR to 38.321 on Integrated Access and Backhaul for NR Rel-17 Samsung Electronics GmbH CR Rel-17 38.321 16.6.0 1171 - B NR\_IAB\_enh-Core

[R2-2111227](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111227.zip) Running CR of TS 38.340 for eIAB updated based on approach A Huawei, HiSilicon draftCR Rel-17 38.340 16.5.0 B NR\_IAB\_enh-Core Late

[R2-2111228](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111228.zip) Running CR of TS 38.340 for eIAB updated based on approach B Huawei, HiSilicon draftCR Rel-17 38.340 16.5.0 B NR\_IAB\_enh-Core Late

* [AT116-e][031][eIAB] MAC: LCG extension and BSR (Samsung)

Scope: Progress MAC: LCG extension and BSR (preemtive) based on contributions to this meeting. Identify agreements, discussion points, can also capture open issues. Attempt to close open issues.

Intended outcome: Report

Deadline: Tuesday W2 (online CB), CLOSED

[R2-2111520](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111520.zip) Summary of discussion [AT116-e][031][eIAB] MAC - LCG extension and BSR Samsung

DISCUSSION

P7 P8

- LGE has a concern on p8. Option 3 which had the most support isn’t completely reflected. Want to remove which have data to transmit.

- Ericsson think we can make this dependent on configuration rather than dynamic.

- Samsung are ok to remove this.

- Nokia think this should be up to implementation, but if we have rules, why not include data to transmit in the condition.

P9

- Ericsson think we can use the PHR format, which is dependent on the configuration, include as many octets for the bitmap as is needed dep on configuration.

- CATT disagrees, the bitmap is too long. This is not applicable to truncated BSR.

- Huawei think we can just keep the BSR format, and we shouldn’t use configuration as also the receiver need to be configured and there is an ambiguous period. PHR will only changed when cells/cell groups are added etc.

- Nokia would be ok with the Ericsson approach.

- LG think P9 is a compromise but think the Ericsson option works, and is ok.

- Apple prefer the Ericsson proposal.

- Samsung think the legacy is preferred P9

- ZTE prefer P9.

P10 P11

- Ericsson think this is a waste of time.

- Nokia think this is not agreeable, already discussed.

- LGE think it would be useful to standardize buffer size calculation for good interoperability.

* Support of Extended BSR by an IAB-MT is an optional capability.
* The same format is adopted for Extended Long and Extended Long Truncated BSR.
* Reserved values from the one-octet eLCID space are used to identify new Extended BSR formats.
* Extended LCG space (max 256 LCGs) shall also apply to pre-emptive BSR.
* Extended pre-emptive BSR format shall be identical to the Extended Long BSR format.
* When the Extended BSR is configured, the selection between Extended BSR and legacy BSR is not left to IAB-MT implementation.
* When the Extended BSR is configured, if the maximum LCGID among the configured LCGs is 7 or lower, legacy format is always sent; otherwise the Extended format is sent.
* The following format is adopted for Extended Long and Extended Long Truncated BSR: Fixed size of 256 LCGi followed by variable number of (fixed size) Buffer Size fields; related buffer size field is added only when the corresponding LCG bit is set to 1 in the bitmap.
* RAN2 will not attempt standardizing buffer size calculation for Rel-17 pre-emptive BSR, nor make any further effort to standardizing triggering of Rel-17 pre-emptive BSR.
* [AT116-e][032][eIAB] RLF indications (LGE)

Scope: Progress Type-2/3 RLF indications and related functionality, based on contributions to this meeting. Identify agreements, discussion points, can also capture open issues. Attempt to close open issues. ph2: Attempt offline agreement of remaining agreeable proposals

Intended outcome: Report, ph2: Agreements

Deadline: Tuesday W2 (online CB), ph2 EOM (offline only)

[R2-2111539](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111539.zip) [AT116-e][032][eIAB] RLF indications LGE

DISCUSSION

- Ericsson think Option 1 is sufficient. If the node is dual connected the other link can be used for traffic. Samsung agrees with Ericsson, think we can make the assumption that the other link is usable.

- Huawei think the option2 is handling the case when the other connection cannot be used, e.g. when connected to different donor DU. IDT agrees with Huawei. ZTE and vivo agrees. ZTE think inter donor DU rerouting is not always available.

- QC are not sure that option 2 is needed.

* Type 2 indication by dual-connected node is triggered when the node initiates RRC re-establishment resulting from BH RLF on both CGs or BH RLF on MCG with no fast MCG recovery.
* A node can transmit type-3 indication if re-establishment is successful. FFS whether to specify a detailed condition for success of re-establishment, e.g., successful transmission of RRC reestablishment complete. FFS whether to also include additional triggering condition such as successful transmission of ReconfigurationComplete, which is for the case the node initiates re-establishment and selects a CHO candidate cell and hence performs CHO successfully.
* A node can transmit type-3 indication only if it previously sent type-2 indication, i.e., type-3 indication cannot be triggered without triggering type-2 indication previously.
* Upon reception of type-2 indication, the node should perform local re-routing if possible.
* Upon reception of type-3 indication, the actions (e.g. local re-routing) triggered upon reception of a previous type-2 indication should be reversed, if possible.
* FFS if Type 2 indication by dual-connected node can be triggered when the node detects BH RLF on any BH and it cannot perform re-routing for affected traffic (if agreed see R2-2111539 for more details)

Chair: attempt to Further agree agreeable proposals offline

* [AT116-e][033][eIAB] CP-UP separation (vivo)

Scope: Progress impact of CP-UP separation, based on contributions to this meeting. Identify agreements, discussion points, can also capture open issues. Attempt to close open issues.

Intended outcome: Report

Deadline: Tuesday W2 (online CB), CLOSED

[R2-2111501](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111501.zip) [AT116-e][033][eIAB] CP-UP separation (vivo) vivo

DISCUSSION

- Nokia think it would be good to allow configured primary path for SCG and just follow this. vivo agrees this.

- Huawei think Nokias proposal change the principle from previous release. Think P6 is closer to legacy principle.

* The configuration of F1-C traffic on the indication of the the leg(s) used for transferring the F1-C traffic is configured to IAB-MT by a new field , e.g., *f1c-TransferPath-r17* ENUMERATED {MCG, SCG, both}.
* As long as the BH RLC CH for F1-C on the indicated Cell Group is configured (the CG is indicated by the field *f1c-TransferPath-r17*), IAB node can be aware of whether to use F1-C transferring over BH or F1-C transferring over RRC, i.e. F1-C-over-BAP is selected as long as BH RLC CH for F1-C on the indicated CG is configured.
* It is not necessary for IAB-node to be aware whether the gNB allows “F1 over BAP” or only allows “F1-C over RRC” during cell (re)selection, in case the gNB broadcasts *iab-Support*.
* ONLY SRB2 is used for F1-C transport in CP/UP-separation scenario 1.
* ONLY split SRB2 is used for F1-C transport in CP/UP-separation scenario 2
* FFS if For IAB-MT’s RRC message that carries F1-C/F1-C related traffic, the IAB-MT use split SRB2 via SCG in scenario 2 if *f1c-TransferPath-r17* indicates ‘*SCG’* or ‘*both’* regardless of the *primaryPath* configuration. FFS on how to capture this in specs.
* FFS if In case the split SRB2 RRC message contains both F1-C traffic and other information unrelated to IAB, the IAB-MT follows the configuration of F1-C transfer path (if configured) to transmit this RRC message.

### 8.4.2 Enhancements to improve topology-wide fairness multi-hop latency and congestion mitigation

[R2-2109582](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109582.zip) Long BSR Format with Extended LCG CATT discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109611](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109611.zip) Discussion on remaining open issues of LCG range extension and congestion Intel Corporation discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109748](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109748.zip) BSR format and reporting in IAB Fujitsu discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109782](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109782.zip) LCG extension for eIAB Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109854](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109854.zip) Discussion on LCG extension and UL hop-by-hop flow control feedback ZTE, Sanechips discussion Rel-17

[R2-2110290](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110290.zip) Discussion on LCG extension issues vivo discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110306](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110306.zip) Discussion on LCG extension and congestion migitation for IAB Lenovo, Motorola Mobility discussion Rel-17

[R2-2110422](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110422.zip) Finalizing enhancements to LCG space and BSR triggering including pre-emptive BSR Samsung Electronics GmbH discussion

[R2-2110806](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110806.zip) Uplink hop-by-hop flow control Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110807](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110807.zip) BSR formats for LCG extension Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110883](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110883.zip) On Topology-wide Fairness, Multi-hop Latency, and Congestion in IAB Network Ericsson discussion NR\_IAB\_enh-Core

[R2-2110897](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110897.zip) On BSR formats for IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110898](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110898.zip) UL Congestion mitigation in multi-hop IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110911](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110911.zip) Enhancements to Rel. 17 IAB RLF indications and local routing Futurewei Technologies discussion R2-2108483

[R2-2111155](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111155.zip) Stage-3 details of LCG extension LG Electronics Inc. discussion Rel-17 NR\_IAB\_enh-Core

[R2-2111174](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111174.zip) Remaining issues -Fairness, latency, congestion Rakuten Mobile, Inc discussion Rel-17

Withdrawn

R2-2109843 On BSR formats for IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core Withdrawn

R2-2109844 UL Congestion mitigation in multi-hop IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core Withdrawn

### 8.4.3 Topology adaptation enhancements

Includign outcome of [Post115-e][088][eIAB] inter-CU routing open issues (Huawei)

[R2-2109783](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109783.zip) Summary of [Post115-e][088][eIAB] inter-CU routing open issues Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core Late

[R2-2111266](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111266.zip) Summary of [Post115-e][088][eIAB] inter-CU routing open issues Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core Late

- Nokia proposes approach C as it brings the least BAP impact. LG thikn this requires R3 change and think from arch point of view B resembles the R16 best.

- Ericsson also think B is a good choice.

- Intel think we need may need to handle a truly mixed scenario, i.e. where we may have both egress and ingress Dstream Utream links belonging to different topologies.

- Ericsson Think that for the ustream there is never any traffic for the own node. Samsung agrees. Qualcomm think this text is for donor DU and we just have common BAP text.

**Inter Topology Routing**

* Go with B, including the following:

- If BAP address matches, deliver to upper layer;

Else:

- If routing ID matches rewriting table, perform the header rewriting;

- perform routing and mapping to BH RLC CH.

* For downstream, the boundary node is able to identify/differentiate the traffic routed from inter-topology vs. the traffic routed from intra-topology, based on the ingress link.
* For downstream at the boundary node, for any received data from inter-topology identified by the ingress link:

The data is delivered to upper layer, if the BAP address in the header is same as the boundary node BAP address configured in the topology of the ingress link (of this packet); otherwise, the data is determined as to be header rewritten (assumes support only of topology where decedent nodes belong to same topology).

(This requires that traffic not terminated at the boundary node should not use the BAP address in header same as the boundary node BAP address configured in the topology of the ingress link.)

Perform the header rewriting based on the configured rewriting table, and then perform routing and mapping to BH RLC CH.

* For upstream at the boundary node, for any received data from lower layer:

We may keep the ingress BAP text of R16 (that is intended for donor DU but general in Stage-3), i.e. if the BAP address in header match the boundary node BAP address configured in the topology of the ingress link, deliver to upper layer.

The data is determined as to be header rewritten and perform the header rewriting accordingly, if routing ID in header matches any “previous routing ID” in the rewriting table; and then perform routing and mapping to BH RLC CH.

DISCUSSION 2

P1-4

- Fujitsu think inter CU and the inter DU may be different cases. Chair wonder if we really need to have dynamic

P1

- Ericsson think this is for Ustream, vivo wonder if this can be for Dstream as well.

- QC think rewriting for rerouting only works for UL, and there is no need for rewriting for Dstream for same topology.

**Intra topology**

* For Upstream, The pre-condition/criteria of “BAP header rewriting for re-routing” is that there is no available next hop found based on BAP routing ID and based on BAP address in the routing table (e.g. due to BH RLF, congestion or type2 indication, etc.), as in R16.
* [AT116-e][047][eIAB] Routing and re-routing continued (Huawei)

Scope: Attempt offline agreement of remaining proposals in [R2-2111266](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111266.zip).

Intended outcome: Report

Deadline: Tuesday W2

[R2-2111500](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111500.zip) Summary of [AT116-e][047][eIAB] Routing and re-routing continued Huawei, HiSilicon

[R2-2111595](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111595.zip) Summary of [AT116-e][047][eIAB] Routing and re-routing continued Huawei, HiSilicon

- Chair wonder if we always have a rewriting mapping configuration Old path ID to New path ID, or can we re-route to any path ID.

- QC think the UE can use any Path ID and no new configuration is required. ZTE agrees with QC.

- LG think there should be a new configuration for the control of the re-writing, for inter-donor re-writing, so we can use the same for all cases.

- Huawei think we cannot choose any donor DU, even for intra CU case, as there need to be matching configuration, e.g. IP configuration. SS agrees. ZTE think the deployment should be assumed to be homogenous/consistent such that any DU is selectable

- Ericsson are ok to have new table but would prefer to keep legacy function as is, i.e. think we first check BAP path ID and then decide on rerouting. Intel agrees.

- QC think we may need two header rewriting tables. Chair think we can choose latrer, if we want to keep addressing plans separate for different topologies, maybe that configuration should be separate, but if we allow to have routing coordination.

- Nokia point out that TPs are useful for the next meeting to understand.

* Will have rewriting mapping configuration(s) Old routing ID to New routing ID that limits the possible rewriting (for all cases of re-writing), details FFS

[R2-2109784](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109784.zip) Leftover proposals in Summary of [Post114-e][075][eIAB] Open Issues on Re-routing Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109583](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109583.zip) Reduction of Service Interruption during Intra-donor IAB Migration CATT discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109584](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109584.zip) Discussion on Type-2/3 RLF indication CATT discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109585](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109585.zip) Discussion on left issues of local routing and routing CATT discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109612](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109612.zip) IAB dual connection, RLF and local rerouting Intel Corporation discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109613](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109613.zip) Intra-donor CU service interruption reduction Intel Corporation discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109614](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109614.zip) Inter-donor CU topology migration, topology redundancy and CP-UP separation Intel Corporation discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109749](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109749.zip) Open issues on (re-)routing Fujitsu discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109750](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109750.zip) Open issues on Type-2 BH RLF indication Fujitsu discussion Rel-17 NR\_IAB\_enh-Core R2-2107649

[R2-2109751](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109751.zip) UE handover during inter-donor-CU migration Fujitsu discussion Rel-17 NR\_IAB\_enh-Core R2-2107651

[R2-2109775](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109775.zip) Discussion on the inter-CU routing Samsung discussion Rel-17 NR\_IAB\_enh

[R2-2109785](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109785.zip) RLF indication for R17-IAB Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109786](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109786.zip) F1 over NR access link and CHO Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core

[R2-2109855](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109855.zip) Discussion on inter-donor topology redundancy ZTE, Sanechips discussion Rel-17

[R2-2109856](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109856.zip) Discussion on RLF indication and local re-routing ZTE, Sanechips discussion Rel-17

[R2-2109861](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109861.zip) Discussion on inter-donor migration and service interruption reduction ZTE, Sanechips discussion Rel-17

[R2-2109940](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109940.zip) BAP processing at the boundary node: Modelling A and B Qualcomm Incorporated discussion Rel-17 NR\_IAB\_enh

[R2-2109941](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109941.zip) Enhancements to RLF indications in IAB Qualcomm Incorporated discussion Rel-17 NR\_IAB\_enh

[R2-2110203](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110203.zip) Routing and re-routing enhancements for eIAB Kyocera discussion Rel-17

[R2-2110204](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110204.zip) Details of BH RLF Indications for eIAB Kyocera discussion Rel-17 R2-2107997

[R2-2110291](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110291.zip) Discussion on issues of local re-routing based on congestion vivo discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110292](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110292.zip) Miscellaneous Issues of Topology Adaptation vivo discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110293](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110293.zip) Miscellaneous issues on CP-UP separation vivo discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110307](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110307.zip) Discussion on local rerouting and local bearer remapping for IAB Lenovo, Motorola Mobility discussion Rel-17

[R2-2110343](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110343.zip) Rel-17 BAP Operations CANON Research Centre France discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110344](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110344.zip) Discussion on RLF indication enhancements CANON Research Centre France discussion Rel-17 NR\_IAB\_enh-Core R2-2107115

[R2-2110348](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110348.zip) Introduce cost factor in local re-routing Sony discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110418](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110418.zip) Triggers for local rerouting Samsung Electronics GmbH discussion

[R2-2110723](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110723.zip) IAB inter-CU (re)routing Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110724](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110724.zip) Re-routing ehnancements and RLF indications in IAB Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core R2-2107516

[R2-2110885](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110885.zip) Boundary IAB node behaviour for partial inter-donor migration Ericsson discussion NR\_IAB\_enh-Core

[R2-2110886](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110886.zip) On Local Routing and Type 2/3 RLF Handling Ericsson discussion NR\_IAB\_enh-Core

[R2-2110888](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110888.zip) Remaining Issues Related to CP/UP Separation in IAB Network Ericsson discussion NR\_IAB\_enh-Core

[R2-2110899](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110899.zip) CHO in IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core

[R2-2110900](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110900.zip) DAPS support in IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core

[R2-2111057](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111057.zip) Open issues for type-2/3 RLF indication ETRI discussion Rel-17

[R2-2111088](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111088.zip) CP-UP separation and other topology adaptation issues Samsung Electronics discussion NR\_IAB\_enh-Core

[R2-2111142](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111142.zip) Resolving open issues on BH RLF indications LG Electronics discussion Rel-17

[R2-2111156](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111156.zip) Further discussion on enhancement of local re-routing LG Electronics Inc. discussion Rel-17 NR\_IAB\_enh-Core

[R2-2111157](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111157.zip) Remaining issues on enhancements of topology adaptation and congestion mitigation LG Electronics Inc. discussion Rel-17 NR\_IAB\_enh-Core

[R2-2111203](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111203.zip) Analysis of some remaining issues for inter-donor & inter-topology routing Futurewei Technologies discussion

Withdrawn

R2-2109845 CHO in IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core Withdrawn

R2-2109846 DAPS support in IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core Withdrawn

### 8.4.4 Other

Includes Duplexing enhancements RAN2 scope

## 8.5 NR IIoT URLLC

(NR\_IIOT\_URLLC\_enh-Core; leading WG: RAN2; REL-17; WID: RP-210854)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

Email max expectation: 4 threads

### 8.5.1 Organizational

Including email discussions [Post115-e][511][IIoT] and [Post115-e][512][IIoT]

[R2-2109327](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109327.zip) LS on TA-based propagation delay compensation (R1-2108635; contact: Huawei) RAN1 LS in Rel-17 NR\_IIOT\_URLLC\_enh To:RAN4 Cc:RAN2

[R2-2111217](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111217.zip) LS on propagation delay compensation (R1-2110647; contact: Huawei) RAN1 LS in Rel-17 NR\_IIOT\_URLLC\_enh To:RAN2 Cc:RAN4

[R2-2110441](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110441.zip) Stage-2 Running CR for Rel-17 IIoT/URLLC Nokia, Nokia Shanghai Bell CR Rel-17 38.300 16.7.0 0392 - B NR\_IIOT\_URLLC\_enh

[R2-2110495](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110495.zip) MAC Running CR for Rel-17 IIoT/URLLC Samsung draftCR Rel-17 38.321 16.6.0 B NR\_IIOT\_URLLC\_enh-Core

### 8.5.2 Enhancements for support of time synchronization

RAN1 progress if any should be taken into account.

[R2-2109302](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109302.zip) RE: LS on Time Synchronization IEEE 1588 WG LS in To:RAN, SA Cc:RAN2

[R2-2109599](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109599.zip) Discussion about propagation delay compensation for accurate time synchronization Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2109776](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109776.zip) Summary of PDC Issues Ericsson discussion

[R2-2109925](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109925.zip) Propagation Delay Compensation for TSN Qualcomm Incorporated discussion Rel-17

[R2-2109990](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109990.zip) Discussion on propagation delay compensation vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110107](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110107.zip) Remaining FFSs on time synchronization and PDC ZTE Corporation, Sanechips, China Southern Power Grid Co., Ltd discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2110199](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110199.zip) Discussion on propagation delay compensation for TSN NTT DOCOMO INC. discussion Rel-17

[R2-2110318](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110318.zip) Left issues for propagation delay compensation Lenovo, Motorola Mobility discussion Rel-17

[R2-2110442](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110442.zip) Views on Support of Propagation Delay Compensation Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2110496](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110496.zip) Issues on Propagation Delay Compensation Samsung discussion

[R2-2110587](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110587.zip) Consideration on the support of time synchronization enhancement OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110801](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110801.zip) Remaining issues of timing synchronization Intel Corporation discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110963](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110963.zip) Discussion about propagation delay compensation enhancements China Telecommunications discussion

[R2-2111046](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111046.zip) Time synchronization for TSN based on RAN1 progress CMCC discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

### 8.5.3 Uplink enhancements for URLLC in unlicensed controlled environments

Remaining open issues. \

[R2-2109600](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109600.zip) Remaining issues about uplink enhancements for URLLC in UCE Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2109653](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109653.zip) cg-RetransmissionTimer configured without autonomousTx CATT discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2109777](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109777.zip) Harmonizing UL CG enhancements in NR-U and URLLC Ericsson discussion

[R2-2109926](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109926.zip) CG Harmonization for Unlicensed Controlled Environment Qualcomm Incorporated discussion Rel-17

[R2-2109991](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109991.zip) Remaining Issue about Autonomous Re-transmission vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110243](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110243.zip) Remaining details on enhancements for URLLC in UCE Lenovo, Motorola Mobility discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110443](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110443.zip) Remaining Issues on HARQ Process Selection for Configured Grant Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2110497](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110497.zip) Remaining Issues on Intra-CG Prioritization and LCH-based Prioritization in UCE Samsung discussion

[R2-2110588](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110588.zip) Consideration on URLLC over NR-U OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110623](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110623.zip) Further Consideration on the Intra-UE multiplexing in UCE ZTE Corporation,Sanechips discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110672](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110672.zip) Remaining issues of CG harmonization Xiaomi Communications discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2108794

[R2-2110754](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110754.zip) Remaining issues for UCE MediaTek Inc. discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110916](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110916.zip) IIoT operation in unlicensed controlled environments InterDigital discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2111104](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111104.zip) Remaining issues of IIoT in UCE III discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2111169](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111169.zip) Remaining issues in intraCG-Prioritization LG Electronics Inc. discussion NR\_IIOT-Core

### 8.5.4 RAN enhancements based on new QoS

Contributions should aim to bring new issues not covered in email discussions already and should be clearly separated in the document from issues covered in the email discussion.

Including email discussion [Post115-e][513][IIoT]

RAN enhancements based on new QoS related parameters taken into account SA2 progress

[R2-2109601](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109601.zip) Discussion on two-level PERs for survival time handling Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2109602](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109602.zip) Summary of [Post115-e][513][IIoT] QoS survival time Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2109603](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109603.zip) TP of baseline CR for Survival Time state operation Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2109654](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109654.zip) HARQ NACK solution: addressing concerns and design details CATT, CMCC discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2109655](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109655.zip) TPs capturing HARQ-NACK solution CATT discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2109709](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109709.zip) L1/L2 configuration adaptation Fujitsu discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2107658

[R2-2109710](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109710.zip) Additional thought on supporting N>1 Fujitsu discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2109778](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109778.zip) RAN enhancements based on new QoS related parameters Ericsson discussion

[R2-2109927](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109927.zip) RAN Enhancement to support Survival Time Qualcomm Incorporated discussion Rel-17

[R2-2109992](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109992.zip) Discussion on HARQ NACK solution vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110067](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110067.zip) Remaining QoS solution aspects Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110068](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110068.zip) Adaptive configuration for CG/SPS Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110069](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110069.zip) Further considerations on survival time for new QoS Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110108](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110108.zip) N and combined Tx-side timer for IIoT QoS ZTE, Sanechips, China Southern Power Grid Co., Ltd, TCL Communication Ltd., vivo discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2110201](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110201.zip) Discussion on survival time state NTT DOCOMO INC. discussion Rel-17

[R2-2110227](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110227.zip) Remaining issues on the support of survival time Lenovo, Motorola Mobility discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110263](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110263.zip) Discussion on the RAN solution for introduction of new QoS parameters CMCC discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2110345](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110345.zip) Finalising Survival Time related enhancements Samsung Electronics GmbH discussion

[R2-2110444](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110444.zip) An Overview of Survival Time Enhancements Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2110589](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110589.zip) Consideration on the support of survival time OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110673](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110673.zip) Clarification on the survival time requirement Xiaomi Communications discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2108795

[R2-2110791](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110791.zip) On counting HARQ-NACKs for triggering survival time state Futurewei Technologies discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110802](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110802.zip) Survival time handling Intel Corporation discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110913](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110913.zip) Enhancements based on new QoS requirements InterDigital discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2110918](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110918.zip) Issues with UE Survival Time support Sequans Communications discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2108457

[R2-2110965](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110965.zip) Discussion on RAN enhancement to support survival time China Telecommunications discussion

[R2-2111167](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111167.zip) Remaining aspects in ST mechanism LG Electronics Inc. discussion NR\_IIOT-Core

[R2-2111183](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111183.zip) Discussion of RAN Enhancements to Support Survival Time TCL Communication Ltd. discussion Rel-17 NR\_IIOT\_URLLC\_enh

## 8.6 Small Data enhancements

(NR\_SmallData\_INACTIVE-Core; leading WG: RAN2; REL-17; WID: RP-212594)

Time budget: 1.5 TU

Tdoc Limitation: 5 tdocs

Email max expectation: 5 threads

### 8.6.1 Organizational

In coming LSs, rapporteur input for email discussions summaires etc (tdocs in this don’t count towards tdoc limit).

Inputs expected for 38.321 CR (Huawei), 38.331 CR (ZTE), 38.300 CR (Nokia)

Including [Post115-e][508][SDT] Stage-2 running CR update (Nokia), [Post115-e][506][SDT] RRC running CR update (ZTE), and [Post115-e][507][SDT] MAC running CR update (Huawei)

[R2-2109308](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109308.zip) Reply LS on Small data transmission (C1-215152; contact: Apple) CT1 LS in Rel-17 5GProtoc17, NR\_SmallData\_INACTIVE-Core To:RAN2 Cc:SA2

[R2-2109321](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109321.zip) Reply LS on on physical layer aspects of small data transmission (R1-2108533; contact: vivo) RAN1 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

[R2-2109330](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109330.zip) LS on the TA validation and mapping details for CG-SDT (R1-2108649; contact: ZTE) RAN1 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

[R2-2111219](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111219.zip) Reply LS on the physical layer aspects of small data transmission (R1-2110661; contact: ZTE) RAN1 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

[R2-2110185](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110185.zip) Running MAC CR for small data Huawei, HiSilicon draftCR Rel-17 38.321 16.6.0 B NR\_SmallData\_INACTIVE-Core Late

[R2-2110186](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110186.zip) Remaining issue for MAC spec Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

[R2-2110187](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110187.zip) Summary of [Post115-e][507][SDT] MAC running CR update (Huawei) Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

[R2-2110573](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110573.zip) RRC Running CR for SDT ZTE Corporation (rapporteur) draftCR Rel-17 38.331 16.6.0 B NR\_SmallData\_INACTIVE

[R2-2110576](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110576.zip) [DRAFT] Reply LS on the physical layer aspects of small data transmission ZTE Corporation, Sanechips LS out Rel-17 To:RAN1

[R2-2110808](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110808.zip) Stage-2 running CR Introduction of SDT Nokia, Nokia Shanghai Bell CR Rel-17 38.300 16.7.0 0357 - B NR\_SmallData\_INACTIVE-Core R2-2108242

### 8.6.2 User plane common aspects

Overall user plane procedure for SDT (including details of ROHC continuity, BSR/PHR configuration, LCH restrictions, handling of TAT and CG-TAT) )

[R2-2109437](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109437.zip) Further Discussion on User Plane Aspect of Small Data Transmission vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109524](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109524.zip) User Plane Common Aspects of RACH and CG based SDT Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109593](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109593.zip) Common aspects for SDT Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109621](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109621.zip) User plane leftover issues for SDT procedure Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109711](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109711.zip) Remaining UP open issues Fujitsu discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109768](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109768.zip) Discussion on user plane issues of SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110030](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110030.zip) User plane aspects of SDT Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110182](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110182.zip) User plane common aspects for SDT Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110255](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110255.zip) Remaining user plane aspects of SDT NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110328](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110328.zip) The UP common issues for small data transmissions Lenovo, Motorola Mobility discussion Rel-17

[R2-2110397](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110397.zip) Consideration on UP remaining issues of SDT? CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110575](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110575.zip) User plane common aspects for SDT ZTE Corporation, Sanechips discussion Rel-17

[R2-2110667](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110667.zip) Clarification on the data volume computation Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110669](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110669.zip) RACH failure in subsequent data transmission phase Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2108791

[R2-2110752](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110752.zip) Remaining issues on UP aspects of SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110809](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110809.zip) UP aspects for SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110915](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110915.zip) User plane aspects of small data transmission InterDigital discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110983](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110983.zip) Handling of legacy TAT and CG-SDT-TAT LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2111039](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111039.zip) Leftover UP common issues of SDT CMCC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2111124](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111124.zip) Remaining UP issues in SDT LG Electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core

### 8.6.3 Control plane common aspects

NOTE: expected input:

Cosourced contributions for CCCH and DCCH solution for non-SDT data arrival indicaiton with acceptable proposals and draft CRs for the solutions for each solution,

Other CP open issues

[R2-2109438](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109438.zip) Handling of non-SDT Data Arrival via BSR vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2107055

[R2-2109439](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109439.zip) Discussion on RRC-controlled Small Data Transmission vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2107054

[R2-2109525](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109525.zip) Control Plane Aspects of SDT Procedure Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109526](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109526.zip) Handling legacy control plane operations during SDT procedure Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2109594 SDT Faliure Handling Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core Withdrawn

[R2-2109595](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109595.zip) CP aspects for SDT Ericsson discussion

[R2-2109617](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109617.zip) DCCH-based indication of non-SDT data arrival Intel Corporation, ZTE corporation, Sanechips, Samsung, CMCC, Qualcomm, OPPO, Sharp, Xiaomi, Sony, CATT, FGI, Asia Pacific Telecom, Radisys discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109618](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109618.zip) Draft CR for introduction of DCCH solution for non-SDT data arrival ZTE corporation, Sanechips, Intel Corporation, Samsung, CMCC, Qualcomm, OPPO, Sharp, Xiaomi, Sony, CATT, FGI, Asia Pacific Telecom, Radisys draftCR Rel-17 38.331 16.6.0 NR\_SmallData\_INACTIVE-Core

[R2-2109619](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109619.zip) DCCH vs CCCH based approach for indication of non-SDT data arrival Intel Corporation, ZTE corporation, Sanechips, Samsung, Qualcomm, OPPO, Sharp, Xiaomi, Sony, CATT, Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109620](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109620.zip) Control plane leftover issues for SDT procedure Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109712](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109712.zip) Handling of SDTF detection timer Fujitsu discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2107659

[R2-2109713](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109713.zip) RAN paging reception and response during SDT Fujitsu discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2107660

[R2-2109769](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109769.zip) Discussion on control plane issues of SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110031](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110031.zip) Control plane aspects of SDT Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110032](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110032.zip) SDT specific NAS and AS interaction Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110033](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110033.zip) Power Saving for SDT Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110184](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110184.zip) Discussion on the NAS aspects of Small Data Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110209](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110209.zip) Remaining Issues on the Arrival of Non-SDT Traffic FGI, Asia Pacific Telecom discussion

[R2-2110254](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110254.zip) Remaining control plane aspects of SDT NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2107779

[R2-2110329](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110329.zip) Discussion on CP data transmission over SDT Lenovo, Motorola Mobility discussion Rel-17

[R2-2110398](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110398.zip) Consideration on NAS and AS Interaction CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110399](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110399.zip) Consideration on CP issues CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110572](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110572.zip) Control plane common aspects of SDT ZTE Corporation, Sanechips discussion Rel-17

[R2-2110595](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110595.zip) Control plane common aspects for SDT Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110596](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110596.zip) Non-SDT data arrival Huawei, HiSilicon, InterDigital, LGE, Ericsson, ASUSTeK, Nokia, Nokia Shanghai Bell, Google, Rakuten Mobile, Fujitsu, NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110668](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110668.zip) Paging reception during SDT Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2108790

[R2-2110753](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110753.zip) Remaining issues on CP aspects of SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2107992

[R2-2110797](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110797.zip) Draft LS to CT1 on small data transmission Apple LS out Rel-17 NR\_SmallData\_INACTIVE-Core To:CT1

[R2-2110818](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110818.zip) SDT control plane aspects Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE

[R2-2110819](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110819.zip) RRC procedure for SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE

[R2-2110865](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110865.zip) Untreated proposal from [Post113-e][503] InterDigital discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2106051

### 8.6.4 Aspects specific to RACH based schemes

RA resource configuration and selection, RAN2 specific details of context fetch/data forwarding with and without anchor relocation. Note: common RACH aspects of signalling will be treated in 8.18

[R2-2109440](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109440.zip) Supporting subsequent UL transmission during RA-SDT vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109527](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109527.zip) RACH configuration for Small Data Transmission. Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109591](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109591.zip) RACH based small data transmission Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109622](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109622.zip) RA-SDT leftover issues Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109770](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109770.zip) Discussion on swiching from RA-SDT to legacy RACH OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110123](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110123.zip) Discussion on RACH-based SDT Spreadtrum Communications discussion Rel-17

[R2-2110208](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110208.zip) C-RNTI handling for SDT FGI, Asia Pacific Telecom discussion

[R2-2110210](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110210.zip) Issues of the Subsequent Data Transmission FGI, Asia Pacific Telecom discussion R2-2107463

[R2-2110330](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110330.zip) Analysis on open issues of RA based SDT Lenovo, Motorola Mobility discussion Rel-17

[R2-2110349](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110349.zip) Remaining issues of RACH-based SDT in NR Sony discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110400](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110400.zip) Anchor relocation during SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110594](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110594.zip) Small data transmission with RA-based schemes Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110624](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110624.zip) Discussion on RA-based small data transmission Google Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2110760](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110760.zip) Remaining issues on RACH based SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2107993

[R2-2110810](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110810.zip) RA specific aspects for SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110984](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110984.zip) Switching cases of SDT and non-SDT LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2111002](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111002.zip) Discussion on fallback to legacy RA for RA-SDT ASUSTeK discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2111038](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111038.zip) Discussion on RACH based SDT CMCC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

### 8.6.5 Aspects specific to CG based schemes

Including [Post114-e][508][SData] Open issues for CG-SDT (Qualcomm)

Contributions should aim to bring new issues not covered in email discussions already and should be clearly separated in the document from issues covered in the email discussion.

CG resources, configuration and selection, validity of CG resources, multiple CG configurations, handling of beam selection for CG (including association between CGs and SSBs) etc.

[R2-2109441](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109441.zip) Supporting Small Data Transmission via CG PUSCH vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2107057

[R2-2109528](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109528.zip) TAT-SDT expiry handing during the CG-SDT procedure Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109592](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109592.zip) Details of CG based SDT Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109623](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109623.zip) CG-SDT leftover issues Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109645](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109645.zip) Discussion on left issue for CG-SDT resource release SHARP Corporation discussion NR\_SmallData\_INACTIVE-Core

[R2-2109771](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109771.zip) Discussion on the procedure of CG-SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2109772](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109772.zip) Discussion on handling of CG-SDT resources OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110034](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110034.zip) CG specific SDT procedure Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110183](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110183.zip) CG-based schemes for SDT Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110245](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110245.zip) Further details on CG based small data transmission Lenovo, Motorola Mobility discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110248](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110248.zip) Additional aspects of CG based SDT Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110401](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110401.zip) Remaining issues for CG-SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110574](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110574.zip) Open issues for CG based SDT ZTE Corporation, Sanechips discussion Rel-17 Revised

[R2-2110625](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110625.zip) Discussion on CG-based small data transmission Google Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2110670](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110670.zip) Summary of [Post115-e][509][SDT] CG open issues (Xiaomi) Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

[R2-2110671](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110671.zip) Remaining issues of CG SDT in RAN2 Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2108792

[R2-2110761](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110761.zip) Remaining issues on CG based SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110764](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110764.zip) CG-SDT Switch to RA during subsequent transmissions NEC Telecom MODUS Ltd. discussion

[R2-2110914](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110914.zip) CG-based SDT selection and configuration InterDigital discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110961](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110961.zip) Discussion on open issues for CG based SDT China Telecommunications discussion

[R2-2110986](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110986.zip) Remaining CG-SDT issues in SDT LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2111031](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111031.zip) Aspects specific to CG-SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2111125](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111125.zip) Autonomous retransmission in CG-SDT LG Electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2111185](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111185.zip) Discussion on CG based Small Data Transmission TCL Communication Ltd. discussion Rel-17 NR\_SmallData\_INACTIVE, NR\_SmallData\_INACTIVE-Core

[R2-2111199](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111199.zip) Open issues for CG based SDT ZTE Corporation, Sanechips discussion Rel-17 [R2-2110574](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110574.zip)

## 8.7 NR Sidelink relay

(NR\_SL\_Relay-Core; leading WG: RAN2; REL-17; WID: RP-212601)

Time budget: 2 TU

Tdoc Limitation: 7 tdocs

Email max expectation: 7 threads

### 8.7.1 Organizational

Incoming LSs, TS updates, rapporteur inputs. This AI is reserved for rapporteur and organizational inputs. Documents in this AI do not count towards the tdoc limitation.

[R2-2109303](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109303.zip) Reply LS on establishment/resume cause value and UAC on L2 SL Relay (C1-214795; contact: OPPO= CT1 LS in Rel-17 5G\_ProSe, NR\_SL\_relay-Core To:RAN2 Cc:SA2, RAN3

[R2-2109399](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109399.zip) Work planning for R17 SL relay OPPO, CMCC Work Plan Rel-17 NR\_SL\_relay-Core

[R2-2109400](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109400.zip) Running CR for TS 38.351 OPPO draft TS Rel-17 38.351 0.0.0 NR\_SL\_relay-Core

[R2-2109401](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109401.zip) Remaining open issues for R17 SL relay OPPO discussion Rel-17 NR\_SL\_relay-Core Late

[R2-2109543](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109543.zip) Stage 2 Running CR on Introduction of R17 SL Relay MediaTek Inc. discussion Rel-17

[R2-2110054](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110054.zip) MAC running CR for SL relay Apple (rapporteur) draftCR Rel-17 38.321 16.6.0 B NR\_SL\_relay-Core Late

[R2-2110447](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110447.zip) Running CR of 38.323 for SL Relay Samsung draftCR Rel-17 38.323 16.5.0 B NR\_SL\_relay-Core

[R2-2110490](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110490.zip) RRC running CR for SL relay Huawei, HiSilicon draftCR Rel-17 38.331 16.6.0 B NR\_SL\_relay-Core

[R2-2110687](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110687.zip) Running CR of 38.304 for SL relay Ericsson draftCR Rel-17 38.304 16.6.0 B NR\_SL\_relay-Core

[R2-2111123](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111123.zip) Discussion on LS on discovery and relay (re)selection OPPO discussion Rel-17 NR\_SL\_relay-Core

### 8.7.2 L2 relay specific topics

No documents should be submitted to 8.7.2. Please submit to 8.7.2.x.

#### 8.7.2.1 Control plane procedures

Including connection management, SI delivery, paging, access control for remote UE. This agenda item will utilise a summary document.

Including outcome of [Post115-e][610][Relay] Control plane procedures (InterDigital)

[R2-2109414](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109414.zip) Discussion on Control Plane Aspects for L2 Relay OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2109419](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109419.zip) Remaining issues on paging and SIB forwarding in L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109427](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109427.zip) Remaining issues on RRC connection management of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109507](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109507.zip) Control Plane Procedures of L2 Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109508](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109508.zip) Discussion on Remote UE's Paging via Dedicated RRC Message CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109544](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109544.zip) Discussion on SI Modification and PWS Notification MediaTek Inc. discussion Rel-17

[R2-2109545](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109545.zip) Remaining issue for RLF handling MediaTek Inc. discussion Rel-17

[R2-2109556](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109556.zip) Discussion on RRC connection management for L2 sidelink relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2109557](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109557.zip) SI forwarding and paging for L2 sidelink relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2109644](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109644.zip) Discussion on left issue for paging delivery SHARP Corporation discussion NR\_SL\_relay-Core

[R2-2109696](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109696.zip) SI forwarding NEC Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2109729](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109729.zip) Monitoring Paging by a U2N Relay Lenovo, Motorola Mobility discussion NR\_SL\_relay-Core

[R2-2109763](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109763.zip) Discussion on system information delivery open issues China Telecom discussion Rel-17 NR\_SL\_relay-Core

[R2-2109811](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109811.zip) SIB handling in sidelink L2 U2N relay Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core R2-2105739

[R2-2109859](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109859.zip) Consideration on the connection management of SL relay ZTE, Sanechips discussion Rel-17

[R2-2109860](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109860.zip) Consideration on the system information acquisition and paging in SL relay ZTE, Sanechips discussion Rel-17

[R2-2109928](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109928.zip) Summary of [POST115-e][610][Relay] Control Plane Procedures (InterDigital) InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109929](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109929.zip) Open Issues on Paging Procedure for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109930](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109930.zip) Open Issues on SI for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109934](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109934.zip) Connection Establishment Procedure for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109959](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109959.zip) Remaining issues of system information forwarding for L2 U2N Remote UE Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2109964](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109964.zip) Access control support for L2 U2N Relay Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110064](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110064.zip) Remaining issues on SIB forwarding Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110065](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110065.zip) RNA Update via L2 UE-to-NW Relay Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110121](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110121.zip) Discussion on control plane procedures for L2 U2N relay Spreadtrum Communications discussion Rel-17

[R2-2110163](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110163.zip) Control plane procedure - SIB delivery, and timer for remote UE LG Electronics France discussion Rel-17 NR\_SL\_relay

[R2-2110165](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110165.zip) L2 relay control plane issues Kyocera discussion

[R2-2110213](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110213.zip) Open issues on L2 Control Plane Procedures vivo discussion

[R2-2110215](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110215.zip) Draft LS on L2 U2N relay issues vivo LS out To:SA2, CT1

[R2-2110221](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110221.zip) Discussion on SI and short message delivery Xiaomi discussion

[R2-2110222](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110222.zip) Discussion on connection control Xiaomi discussion

[R2-2110284](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110284.zip) Discussion on access control of L2 relay SHARP Corporation discussion

[R2-2110303](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110303.zip) Considerations on control plane issues Lenovo, Motorola Mobility discussion Rel-17

[R2-2110350](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110350.zip) Area specific SI issue in L2 relay Sony discussion Rel-17 NR\_SL\_relay-Core

[R2-2110363](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110363.zip) Discussion on establishment cause of relay UE Xiaomi, Apple, Lenovo, Motorola Mobility discussion

[R2-2110448](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110448.zip) Connection management and PC5/Uu RLC configurations Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2110449](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110449.zip) Remaining issues for SI message forwarding Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2110450](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110450.zip) Remaining issues for paging delivery Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2110470](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110470.zip) Issue with Forwarding SIB9 to remote UE Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay-Core

[R2-2110688](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110688.zip) Remaining issues on control plane for L2 sidelink relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2111003](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111003.zip) Discussion on paging procedure and information for U2N Relay ASUSTeK discussion Rel-17 NR\_SL\_relay-Core

[R2-2111029](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111029.zip) Relayed System Information Acquisition Futurewei discussion Rel-17 NR\_SL\_relay-Core

[R2-2111190](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111190.zip) SI acquisition, CN Registration and RNAU Lenovo, Motorola Mobility discussion Rel-17 NR\_SL\_relay-Core

#### 8.7.2.2 Service continuity

Service continuity between Uu and relay paths, limited to intra-gNB cases. This agenda item will utilise a summary document.

[R2-2109428](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109428.zip) Remaining issues on service continuity of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109509](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109509.zip) Service Continuity for L2 U2N Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109546](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109546.zip) Remaining open issues for Service Continuity MediaTek Inc. discussion Rel-17

[R2-2109705](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109705.zip) remaining issues on service continuity NEC Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2109780](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109780.zip) Discussion on remaining issues on service continuity ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_relay-Core

[R2-2109933](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109933.zip) Open Issues on Service Continuity for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109962](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109962.zip) Service continuity left over issues for L2 U2N relaying Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110059](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110059.zip) Discussion on U2N Relay UE Identifier Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110060](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110060.zip) [Draft]LS on U2N relay UE identifier Apple LS out Rel-17 NR\_SL\_relay-Core To:SA2

[R2-2110066](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110066.zip) Discussion on remaining issues of service continuity Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110164](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110164.zip) Service continuity – depending on relay state LG Electronics France discussion Rel-17 NR\_SL\_relay

[R2-2110214](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110214.zip) Remaining issues on service continuity in L2 U2N relay vivo discussion

[R2-2110220](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110220.zip) Discussion on service continuity Xiaomi discussion

[R2-2110302](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110302.zip) Path switching in L2 U2N relay case Lenovo, Motorola Mobility discussion Rel-17

[R2-2110351](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110351.zip) Service continuity open issues in L2 NR sidelink rela Sony discussion Rel-17 NR\_SL\_relay-Core

[R2-2110371](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110371.zip) Discussion on supported relay UE RRC states in direct to indirect path switch Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2110488](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110488.zip) Discussion on service continuity for L2 U2N Relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2110499](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110499.zip) Discussion on NR sidelink relay service continuity OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2110689](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110689.zip) Discussion on selecting relay UE in RRC\_IDLE or INACTIVE during path switch Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2110690](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110690.zip) Remaining Issues on service continuity for L2 Sidelink relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2111042](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111042.zip) Service continuity for L2 relay CMCC discussion Rel-17 NR\_SL\_relay-Core

#### 8.7.2.3 Adaptation layer design

Including bearer mapping, remote UE identification, security aspects if any. This agenda item will utilise a summary document.

[R2-2109398](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109398.zip) Left issues for adaptation layer OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2109429](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109429.zip) Further discussion on adaptation layer of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109510](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109510.zip) Adaption Layer Design for L2 U2N Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109547](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109547.zip) Configurations for Bearer Mapping MediaTek Inc. discussion Rel-17

[R2-2109558](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109558.zip) Adaptation layer functionalities for L2 U2N relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2109693](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109693.zip) Remaining issues of Adaptation layer MediaTek Inc. discussion Rel-17

[R2-2109848](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109848.zip) Bearer Mapping Configuration of Adaptation Layer Futurewei discussion Rel-17 NR\_SL\_relay-Core

[R2-2109862](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109862.zip) Discussion on adaptation layer design ZTE, Sanechips discussion Rel-17

[R2-2109906](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109906.zip) UP aspects on Layer 2 SL relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2109935](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109935.zip) Adaptation Layer Design Remaining Issues InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109963](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109963.zip) L2 U2N relaying Adaptation layer design open aspects Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110216](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110216.zip) Adaptation Layer for Uu and PC5 vivo discussion

[R2-2110376](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110376.zip) Finalizing design of Adapt layer Samsung Electronics GmbH discussion

[R2-2110385](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110385.zip) On multiplexing of relay UE and remote UE traffic Samsung Electronics GmbH discussion

[R2-2110987](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110987.zip) Discussion on Adaptation Layer for L2 U2N Relay ETRI discussion Rel-17 NR\_SL\_relay-Core

[R2-2111004](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111004.zip) Discussion on bearer mapping on PC5 adaptation layer ASUSTeK discussion Rel-17 38.300 NR\_SL\_relay-Core

[R2-2111041](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111041.zip) Discussion on adaption layer for L2 U2N relay CMCC discussion Rel-17 NR\_SL\_relay-Core

#### 8.7.2.4 QoS

Mechanisms for E2E QoS management. This AI will be treated on a time-available basis. This agenda item will utilise a summary document.

Including outcome of [Post115-e][604][Relay] Relay QoS (Apple)

[R2-2109433](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109433.zip) Remaining issues on E2E QoS enforcement in L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109511](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109511.zip) QoS Management for L2 Sidelink Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109691](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109691.zip) Views on QoS for sidelink relay Continental Automotive GmbH other Rel-17

[R2-2109822](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109822.zip) Considerations on voice and video support for Relays Philips International B.V., MediaTek, Vivo, FirstNet discussion Rel-17 NR\_SL\_relay-Core

[R2-2109853](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109853.zip) QoS measurement and reporting for path switch procedure Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay-Core

[R2-2109863](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109863.zip) Discussion on QoS of SL relay ZTE, Sanechips discussion Rel-17

[R2-2109905](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109905.zip) Aspects for QoS management with SL relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2109931](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109931.zip) Discussion on QoS for L2 UE to NW Relays InterDigital, Philips discussion Rel-17 FS\_NR\_SL\_relay

[R2-2110053](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110053.zip) Summary of [Post115-e][604][Relay] Relay QoS (Apple) Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110217](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110217.zip) Left issues on E2E QoS management vivo discussion

[R2-2110272](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110272.zip) On recommended bit rate MediaTek Inc. discussion Rel-17 NR\_SL\_relay-Core

[R2-2110297](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110297.zip) QoS for L2 Sidelink Relay Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2110451](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110451.zip) QoS flow control for L2 U2N Relay Samsung, Philips discussion Rel-17 NR\_SL\_relay-Core R2-2107712

[R2-2110498](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110498.zip) Discussion on QoS for layer 2 relay OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2110562](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110562.zip) Discussion on QoS management of L2 U2N relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2110750](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110750.zip) QoS priority mapping combinations Beijing Xiaomi Mobile Softwar discussion Rel-17

[R2-2111040](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111040.zip) Mechanisms for E2E QoS management CMCC discussion Rel-17 NR\_SL\_relay-Core

### 8.7.3 L2/L3 common topics

For any remaining stage 3 issues related to discovery and (re)selection. No documents should be submitted to 8.7.3. Please submit to 8.7.3.x.

#### 8.7.3.1 Discovery

Including 5G ProSe Direct Discovery for the non-relaying case. Re-using LTE discovery as baseline. This agenda item may utilise a summary document (decision to be made based on submitted tdocs).

Including outcome of [Post115-e][611][Relay] Discovery shared/dedicated pool issue (Qualcomm)

[R2-2109430](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109430.zip) Summary report of [Post115-e][611][Relay] Discovery shared and dedicated pool issue (Qualcomm) Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109431](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109431.zip) Remaining issues on discovery Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109512](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109512.zip) Left Issues for Sidelink Discovery CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109809](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109809.zip) Discussion on SL discovery resource pool configuration Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2109857](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109857.zip) Further discussion on Relay discovery ZTE, Sanechips discussion Rel-17

[R2-2109903](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109903.zip) Left issues for SL discovery Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2109932](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109932.zip) Using Shared and Dedicated Resource Pools for Discovery InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109960](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109960.zip) Leftover aspects of discovery for L2 U2N relaying Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110218](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110218.zip) Remaining Issues of Discovery Message Transmission vivo discussion

[R2-2110271](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110271.zip) Remaining issues of Relay Discovery MediaTek Inc. discussion Rel-17 NR\_SL\_relay-Core

[R2-2110304](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110304.zip) Relay Discovery for L2 and L3 relay Lenovo, Motorola Mobility discussion Rel-17

[R2-2110452](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110452.zip) PDCP layer aspects for SL discovery Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2110489](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110489.zip) Remaining issues on relay discovery Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2110500](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110500.zip) Discussion on common issues for relay and non-relay discovery OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2110501](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110501.zip) Discussion on non-relay discovery OPPO, Apple, Samsung, Ericsson, Qualcomm discussion Rel-17 NR\_SL\_relay-Core

[R2-2110749](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110749.zip) Discovery Range for 5G ProSe Direct Discovery Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2110751](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110751.zip) Discovery with simultaneous Shared and Dedicated Resource Pools Beijing Xiaomi Mobile Softwar discussion Rel-17

#### 8.7.3.2 Relay re/selection

Re-using LTE re/selection as baseline. This agenda item may utilise a summary document (decision to be made based on submitted tdocs).

[R2-2109432](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109432.zip) Remaining issues on relay (re)selection Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109513](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109513.zip) New Triggers for Relay Reselection CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109823](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109823.zip) U2N Relay UE operation Threshold Conditions: Impact of UE Mobility Philips International B.V. discussion Rel-17 NR\_SL\_relay-Core

[R2-2109858](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109858.zip) Further discussion on Relay selection ZTE, Sanechips discussion Rel-17

[R2-2109904](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109904.zip) Aspects for SL relay selection and reselection Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2109961](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109961.zip) Open aspects of L2 U2N Relay (re)selection Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110166](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110166.zip) Relay reselection upon HO to another gNB Kyocera discussion

[R2-2110219](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110219.zip) Remaining issues on Relay (re)selection vivo discussion

[R2-2110285](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110285.zip) Discussion on sidelink relay reselection SHARP Corporation discussion R2-2107872

[R2-2110305](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110305.zip) Relay (re)selection for L2 and L3 relay Lenovo, Motorola Mobility discussion Rel-17

[R2-2110370](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110370.zip) Uu connection error handling Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2110502](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110502.zip) Discussion on remaining issue of relay reselection OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2110617](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110617.zip) Discussion on relay reselection aspects Huawei, HiSilicon discussion NR\_SL\_relay-Core

[R2-2110767](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110767.zip) Support of idle mode mobility for remote-UE in SL UE-to-Nwk relay Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core R2-2108462

## 8.8 RAN slicing

(NR\_Slice -Core; leading WG: RAN2; REL-17; WID: RP-212534)

Time budget: 0.5 TU

Tdoc Limitation: 3 tdocs (note that email discussion outcome documents or rapporteur inputs do not count against Tdoc limitations)

Email max expectation: 2 threads

Contributions should illustrate the Stage-3 details of the proposals (e.g. in an Annex containing TP against the running CRs).

### 8.8.1 Organizational

Rapporteur input and running CRs

[R2-2109349](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109349.zip) Response to LS on Cell reselection with band-specific network slices (R3-214472; contact: ZTE) RAN3 LS in Rel-17 FS\_NR\_slice To:SA2 Cc:RAN2

[R2-2109372](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109372.zip) Reply LS on the mapping between service types and slice at application (S2-2106537; contact: Qualcomm) SA2 LS in Rel-17 NR\_slice-Core To:RAN3 Cc:SA4, CT1, SA5, RAN2

[R2-2109817](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109817.zip) LS on Slice list and priority information for cell reselection (C1-216256; contact: Ericsson) CT1 LS in Rel-17 NR\_slice-Core To:RAN2, SA2

[R2-2110239](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110239.zip) Running 38.304 CR for RAN slicing CMCC draftCR Rel-17 38.304 16.6.0 B NR\_slice-Core

[R2-2110374](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110374.zip) Draft stage 2 CR: Enhancements in RAN slicing Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 16.7.0 NR\_slice-Core

[R2-2110593](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110593.zip) 38.321 running CR for RAN Slicing OPPO draftCR Rel-17 38.321 16.6.0 B NR\_slice-Core

[R2-2110645](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110645.zip) [Post115-e][245][Slicing] Running NR RRC CR for RAN slicing (Huawei) Huawei discussion Rel-17 NR\_slice-Core Late

[R2-2110646](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110646.zip) Running CR of introduction of RAN slicing enhancements for NR Huawei, HiSilicon draftCR Rel-17 38.331 16.6.0 B NR\_slice-Core Late

[R2-2111118](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111118.zip) Understanding on the slice list and priority information ZTE corporation, Sanechips discussion Rel-17 NR\_slice-Core

### 8.8.2 Cell reselection

Including discussion on how definition of "slice group" and how that can be defined and indicated to UE, e.g. do we adopt the same "slice group" definition for cell reselection and RACH?

Including discussion on whether additional mechanisms beyond solution 4 are needed

Including outcome of [Post115-e][244][Slicing] Resolving FFSs for solution 4 (Lenovo)

[R2-2109403](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109403.zip) Considerations on slice based cell reselection Beijing Xiaomi Software Tech discussion Rel-17

[R2-2109434](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109434.zip) Remaining issues on slice specific cell reselection Qualcomm Incorporated discussion NR\_slice-Core

[R2-2109616](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109616.zip) Further considerations of slice based cell reselection Intel Corporation discussion Rel-17 NR\_slice-Core

[R2-2109725](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109725.zip) [Post115-e][244][Slicing] Resolving FFSs for solution 4 (Lenovo) Lenovo, Motorola Mobility (Rapporteur) discussion Rel-17 NR\_slice-Core

[R2-2109726](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109726.zip) [draft] LS on Measurement validity for cell reselection based on Network Slicing Lenovo, Motorola Mobility (Rapporteur) LS out Rel-17 NR\_slice-Core To:RAN4

[R2-2109727](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109727.zip) Triggers for initiating RAN slicing based cell reselections Lenovo, Motorola Mobility discussion NR\_slice-Core

[R2-2109728](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109728.zip) Optimizations for signalling Slice Information Lenovo, Motorola Mobility discussion NR\_slice-Core

[R2-2109781](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109781.zip) On optimizing the broadcast of slice support of neighbor cells Samsung discussion

[R2-2109787](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109787.zip) Discussion on slice-based cell reselection prioritization BT plc discussion Rel-17

[R2-2110083](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110083.zip) Slice based cell reselection under NW control Apple discussion Rel-17 NR\_slice-Core

[R2-2110124](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110124.zip) Discussion on slice based cell reselection Spreadtrum Communications discussion Rel-17

[R2-2110257](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110257.zip) Open issues for slice based cell reselection CMCC discussion Rel-17 FS\_NR\_slice

[R2-2110274](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110274.zip) A couple of FFS for Cell Reselection Kyocera discussion

[R2-2110372](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110372.zip) Slice information provisioning for cell reselection Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_slice-Core

[R2-2110437](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110437.zip) Slice based cell reselection CATT discussion Rel-17 NR\_slice-Core

[R2-2110522](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110522.zip) Remaining issues on slice priority for cell reselection Samsung R&D Institute UK discussion

[R2-2110583](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110583.zip) Discussion on slice based cell reselection LG Electronics UK discussion Rel-17

[R2-2110586](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110586.zip) FFS issues on Solution option 4 LG Electronics UK discussion Rel-17

[R2-2110590](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110590.zip) Consideration on slice-specific cell reselection OPPO discussion Rel-17 NR\_slice-Core

[R2-2110647](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110647.zip) Discussion on slice based cell reselection under network control Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

[R2-2110698](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110698.zip) Slice support in a serving cell and NAS interaction Ericsson discussion Rel-17 NR\_slice-Core

[R2-2110699](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110699.zip) Slice-based cell re-selection algorithm Ericsson discussion Rel-17 NR\_slice-Core

[R2-2110901](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110901.zip) Remaining Issues on Slice Info and Option 4 Samsung R&D Institute UK discussion

[R2-2110912](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110912.zip) Slice information provided by RRCRelease Sharp discussion Rel-17 R2-2108433

[R2-2111010](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111010.zip) Further consideration on slice specific cell reselection ZTE corporation, Sanechips discussion Rel-17 NR\_slice-Core

### 8.8.3 RACH

Including discussion on RAN slicing-specific RACH prioritization impacts that are not discussed as part of the common RACH prioritization agenda (if any)

Including outcome of [Post115-e][242][Slicing] Cell- vs. UE specific slice group signalling (Ericsson)

NOTE: The common discussion on Rel-17 RACH partitioning will be discussed under AI 8.18. This AI will only consider RACH partitioning from slicing perspective.

[R2-2109435](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109435.zip) Remaining issues on slice specific RACH Qualcomm Incorporated discussion NR\_slice-Core

[R2-2109747](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109747.zip) Considerations on slice based RACH configuration Beijing Xiaomi Software Tech discussion Rel-17

[R2-2110084](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110084.zip) Slice based RACH configuration Apple discussion Rel-17 NR\_slice-Core

[R2-2110258](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110258.zip) Open issues for slice based RACH configuration CMCC discussion Rel-17 FS\_NR\_slice

[R2-2110373](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110373.zip) Slice grouping considerations Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_slice-Core

[R2-2110438](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110438.zip) Analysis on slice based RACH configuration CATT discussion Rel-17 NR\_slice-Core

[R2-2110591](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110591.zip) Consideration on slice-specific RACH OPPO discussion Rel-17 NR\_slice-Core

[R2-2110648](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110648.zip) Discussion on slice based RACH configuration Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

[R2-2110700](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110700.zip) RACH for RAN slicing enhancement Ericsson discussion Rel-17 NR\_slice-Core

[R2-2110702](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110702.zip) [Post115-e][242][Slicing] Cell- vs. UE specific slice group signalling (Ericsson) Ericsson discussion Rel-17 NR\_slice-Core Late

[R2-2110712](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110712.zip) Remaining issues for slice-specific RACH configurations Nokia, Nokia Shanghai Bell discussion Rel-17 FS\_NR\_slice R2-2107506

[R2-2111011](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111011.zip) Further consideration on slice specific RACH ZTE corporation, Sanechips discussion Rel-17 NR\_slice-Core

[R2-2111165](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111165.zip) Remaining issues on slice specific RACH prioritization LG Electronics Inc. discussion NR\_slice-Core

### 8.8.4 UE capabilities

This agenda item may use a summary document.

Including discussion on UE capabilities related to RAN2-defined features for RAN slicing.

[R2-2111304](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111304.zip) Summary of agenda 8.8.4: UE capabilities (RAN slicing) Qualcomm discussion Rel-17 NR\_Slice-Core Late

[R2-2109436](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109436.zip) Consideration on capability of RAN slicing enhancement Qualcomm Incorporated discussion NR\_slice-Core

[R2-2109627](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109627.zip) UE capability for Slicing enhancement Intel Corporation discussion Rel-17 NR\_slice-Core

[R2-2110259](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110259.zip) Discussion on UE capability for RAN slicing enhancement CMCC discussion Rel-17 FS\_NR\_slice

[R2-2110592](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110592.zip) Consideration on UE capability for Slicing OPPO discussion Rel-17 NR\_slice-Core

[R2-2110649](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110649.zip) Discussion on slice related UE capabilities Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

## 8.9 UE Power Saving

(NR\_UE\_pow\_sav\_enh-Core; leading WG: RAN2; REL-17; WID: RP-212632)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 4 threads

RP 93e: PEI: Support PDCCH-based PEI as the only option.

### 8.9.1 Organizational

E.g. Rapporteur input. Incimong LS. Running CRs etc

LS in

[R2-2109337](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109337.zip) LS on RAN3 work associated with UE Power Saving (R3-214281; contact: Nokia) RAN3 LS in Rel-17 NR\_UE\_pow\_sav\_enh-Core To:RAN Cc:RAN2, SA2, CT1

* noted

[R2-2109362](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109362.zip) LS on criteria for RLM/BFD relaxation (R4-2115349; contact: vivo & MediaTek) RAN4 LS in Rel-17 NR\_UE\_pow\_sav\_enh-Core To:RAN2 Cc:RAN1

* noted

[R2-2111234](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111234.zip) LS Reply on UE Power Saving (S2-2107856; contact: Huawei) SA2 LS in Rel-17 NR\_UE\_pow\_sav\_enh-Core To:RAN2, CT1, RAN3 Cc:RAN1

- Xiaomi think there is mentioning of UE providing paging probability information. Chair assumes that part will be discussed in R2.

- Nokia wonder about UE cap. Chair think this is discussed in R2 for now.

- VDF think the cover sheet may be somewhat outdated it wasn't the focus. Think ALL AMFs connected to a gNB shall use consistent policy.

* noted

[R2-2111247](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111247.zip) Reply LS on UE Power Saving (R1-2110608; contact: MediaTek) RAN1 LS in Rel-17 NR\_UE\_pow\_sav\_enh-Core To:RAN2

* noted

CRs

[R2-2110975](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110975.zip) 38.300 running CR for introduction of UE power saving enhancements Huawei, HiSilicon draftCR Rel-17 38.300 16.7.0 B NR\_UE\_pow\_sav\_enh-Core

**L1 parameters LS Discussion**

- Chair wonder about L1 parameters. MTK think there are lot of FFSes. Can discuss more based on Nov update.

- Xiaomi think there may be things to discuss

- Vivo think we can discuss for running CRs after the meeting.

- CATT think some parameters can be discussed e.g. total number of subgroups (8).

### 8.9.2 Idle/inactive-mode UE power saving

Contributions input to 8.9.2.x.

Including outcome of [Post115-e][089][ePowSav] Paging Subgrouping (Xiaomi)

[R2-2109647](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109647.zip) Summary of [Post115-e][089][ePowSav] Paging Subgrouping Beijing Xiaomi Mobile Softwar discussion

DISCUSSION

P8 / P9

- Ericsson IDT Sequans + many companies: overlapping not needed.

P9.2

- VDF think both are needed simultaneously in a cell, because this is related to core network and we need to support network sharing. FW also think both need to be supported due to AMF capability.

- OPPO think that we already agreed that if CN don’t provide subgroup then UE can use UE ID.

- ZTE think both should eb supported.

- Chair: Majority of comments (on torhu) indicate that we should only support one of the methods in a cell.

- CATT think that R1 decided that number of subgroups is configurable. Chair think that if we anyway need flexibility, we cannot hard code the no of subgroup indications used for core network subgroups anyway.

P10

- LG think this shall be configurable, VDF think this may be OAM,

* Assume that one subgroup indication refer to either CN assigned subgroups or UE-ID based subgroup (no overlapping)
* Both UE ID based and CN based subgrouping can be supported simultaneously in a cell, it is allowed to just support one of them.
* FFS if the total number of CN-assigned subgroups is OAM configured. Max would be 8 as this is what RAN support.

Re-prepare offline for agreements in CB session, where the baseline is the above,

* [AT116-e][045][ePowSav] Paging Subgrouping (Xiaomi)

Scope: a) based on [R2-2109647](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109647.zip), taking into account agreements above, for remaining proposals, collect one round of comments, attempt agreement offline,

b) determine what configuration info need to broadcasted by gNB.

Intended outcome: Report

Deadline: Wed W2

[R2-2111524](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111524.zip) Summary of [AT116-e][045][ePowSav] Paging Subgrouping (Xiaomi) Xiaomi

DISCUSSION

P2, P1 P5

- for P1, LGE think this parameter doesn't say anything about CN assigned subgrouping.

P6

- Chair wonder if we really need the fine grained capability. Apple think it is needed, e.g. for testing etc. A number of companies agree with Apple.

- P6: VDF think MME will have different paging strategy if Cn knows UE ID based capability-.

CATT and Nokia think it makes sense to keep together, no reason to split.

- Ericsson think that the CN doesn't need to know whether the UE supports UEID based subgrouping or not.

- Intel think that with 2b, then AMF need to support UE ID based dubgrouping, 2a allows UE ID based subgrouping with only AS/RAN update.

* The total number of CN-assigned subgroups that is used is not fixed can be configured up to 8 (e.g. by OAM). No impact on signalling is assumed.
* RAN introduces a new parameter Nsg-UEID to indicate its support of UE-ID based subgrouping.
* RAN does not support any type of subgrouping if its configuration for subgrouping is either absent or nullified (e.g. *subgroupsNumPerPO* is either absent or set to zero). FFS for the signalling details.
* We assume separate indications for UE capability of CN based subgrouping and UEID based subgrouping.
* UE’s capability of supporting the UE ID based subgrouping is reported to RAN by AS UE capability signalling while R2 assumes that UE’s capability of supporting the CN-assigned subgrouping is reported to CN by NAS signalling.
* We send an LS (short post email discussion)

#### 8.9.2.1 Architecture

Further Aspects on responsibility split between nodes (and between WGs). Specific cases.

UE subgrouping

[R2-2109490](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109490.zip) Discussion on grouping-based paging OPPO discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109520](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109520.zip) Further details of UE Subgrouping Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109736](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109736.zip) Architecture for paging enhancement by UE subgrouping vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109880](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109880.zip) Further considerations for subgrouping Intel Corporation discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110402](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110402.zip) Further Consideration on Paging Subgrouping CATT discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110413](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110413.zip) CN assigned paging subgroups Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110481](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110481.zip) Consideration on Idle/inactive-mode UE power saving Lenovo, Motorola Mobility discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core R2-2107902

[R2-2110538](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110538.zip) General scenario consideration on paging subgrouping Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110618](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110618.zip) Further Consideration on supporting CN Assigned Subgrouping ZTE Corporation,Sanechips discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110967](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110967.zip) UE Paging Subgroup Assignment MediaTek Inc. discussion

[R2-2111032](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111032.zip) Remaining details on subgrouping Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

UE ID and CN assigned subgroup

[R2-2110545](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110545.zip) On the co-existence of UE-ID and CN assigned subgroups Interdigital, Inc. discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110792](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110792.zip) On supporting both CN-assigned subgrouping and UEID-based subgrouping in a same cell Futurewei Technologies discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2111074](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111074.zip) Considerations on UE-ID based subgrouping CMCC discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

UE assistance information

* [AT116-e][034][ePowSav] UE assistance for CN subgroups (CMCC)

Scope: Collect comments for the topic of UE assistance for CN subgroups. Make progress if possible, Identify agreements, and potential discussion points. CB online

Intended outcome: Report with Agreements

Deadline: Wednesday W2 (Online CB)

[R2-2111535](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111535.zip) Summary of [AT116-e][034][ePowSav] UE assistance for CN subgroups (CMCC) CMCC

DISCUSSION

P3 P4 – do we have a case for which UE assistance is needed/shall be used.

- CATT wonder if this is conditional, if supported, Chair think not.

- Ericsson think there was no consensus on P3. It has to be verifiable. Ericsson think that whether the UE has permanent power supply can be verified.

- OPPO think P4 is not needed. CN has this info. Apple agrees. For P3, there is no need, as power saving is always beneficial, can leave this to CN impl.

- QC think P3 and P4 is about semi-dynamic info so UE assistance is useful, e.g. paging propb is dep on which app is running.

- Samsung think P3 is not clear. It seems not essential.

- CMCC think that power sensitive UEs should be grouped in small groups. Think the whether UE is charging or not canno be known by the core network.

Chair: There still seems to be no consensus.

* Noted

[R2-2110546](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110546.zip) UE assistance for CN assigned subgroups Interdigital, Inc. discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

* [034] Noted

[R2-2111073](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111073.zip) Considerations on assistance information and signaling for paging subgrouping CMCC discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

* [034] Noted

#### 8.9.2.2 Control and Procedure details

Further Aspects e.g. on How a UE determines which radio resource(s) to monitor for paging purposes, which configurations are used, etc. UE capabilities

Subgrouping

[R2-2109455](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109455.zip) Subgrouping for paging occasions Qualcomm Incorporated discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109737](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109737.zip) UE subgrouping procedure for paging enhancement vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109779](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109779.zip) Further discussion on CN-assigned paging grouping Transsion Holdings discussion

[R2-2110051](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110051.zip) NR UE Power Save Paging Subgrouping aspects Apple discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110352](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110352.zip) Discussion on paging subgroupingenhancements for idle/inactive-mode UE power saving Sony discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110380](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110380.zip) CN assigned subgroup LG Electronics Inc. discussion Rel-17

[R2-2110381](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110381.zip) UE ID based subgroup LG Electronics Inc. discussion Rel-17

[R2-2110482](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110482.zip) Considerations on the configuration for UE paging grouping Lenovo, Motorola Mobility discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core R2-2107903

[R2-2110539](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110539.zip) Detailed design on paging subgrouping Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110547](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110547.zip) Subgroup determination Interdigital, Inc. discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110620](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110620.zip) Consideration on the paging enhancement for idle or inactive UE ZTE Corporation,Sanechips discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110968](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110968.zip) Paging Monitoring with UE Subgrouping MediaTek Inc. discussion

* [AT116-e][046][ePowSav] Paging Early Indication (Ericsson)

Scope: Address PEI proposals submitted to this meeting (pl select top down the most important proposals) collect comments, and identify agreeable proposals.

Intended outcome: Report

Deadline: Wed W2

[R2-2111562](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111562.zip) Summary of [AT116-e][046][ePowSav] Paging Early Indication Ericsson

DISCUSSION

- LG think indeed P10 is about monitoring

- HW thikn P3 can be removed

- P4: Xiaomi thikn this need to be checked by R1. CATT think R1 is not discussing eDRX at all, so this is a R2 issue. CATT agrees that R1 may need to check for issue. Ericsson think P4 reflects the outcome, not enough support to send an LS.

P8

- Chair wonder if this is related to overhead or what. Ericsson think yes,

- Ericsson also think PEI is not beneficial for UE power saving during mobility. VDF think a major worry is that other UEs are negatively affected. VDF think that if paging load is high, such that it is probable that PEI is set to wake up at any time it is transmitted, then PEI affects the UE power consumption negatively compared to not having a PEI, and if all UEs are pages over a wide area (e.g. for mobility), then the paging load may likely be high.

- MTK think PEI is helpful also for mobile UEs.

- Chair: Can continue to think about this.

* RAN2 assumes that if PEI is detected, and the PEI indicates that the UE has to monitor the associated PO, then the UE monitors paging DCI in the associated PO, including scheduling information for paging PDSCH (if included) as in legacy. This assumption may be updated based on RAN1 agreements.
* As a baseline RAN2 has a preference to support PEI with both DRX and eDRX, but potential issues (e.g. PEI and PTW) are FFS.
* For UE-ID based subgroups the UE identity is UE\_ID = 5G-S-TMSI mod X, where X is 8192 (1024\*8).
* Introduce a *UERadioPagingInfo* IE in the *UECapabilityInformation* message in NR in Rel-17.
* If the UE was not able to monitor the PEI occasion corresponding to its PO the UE shall monitor the PO.

PEI

[R2-2109453](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109453.zip) PEI configuration and monitoring procedures Qualcomm Incorporated discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109491](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109491.zip) Discussion on PEI monitoring OPPO discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109521](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109521.zip) UE Idenity for paging subgrouping Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110415](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110415.zip) PEI monitoring in last used cell Ericsson, Vodafone discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2111135](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111135.zip) Remaining issues on PEI monitoring Beijing Xiaomi Mobile Softwar discussion

Capability

[R2-2111033](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111033.zip) UE and NW capabilities on subgrouping Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

Other

[R2-2109522](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109522.zip) DRX cycle for monitoring paging Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

### 8.9.3 Other aspects RAN2 impacts

e.g. TRS/CSI-RS for idle/inactive-mode UE

UE capability

[R2-2109878](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109878.zip) Consideration of UE capability for Rel-17 UE power saving Intel Corporation discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

General

[R2-2109493](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109493.zip) Power saving enhancement for connected mode UE OPPO discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109523](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109523.zip) Other RAN2 aspects of UE Power Saving Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110619](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110619.zip) Initial Consideration on DCI based Power Saving ZTE Corporation,Sanechips discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110414](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110414.zip) Other aspects on UE power saving Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2111034](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111034.zip) RAN2 impact on connected mode power saving Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

TRS CSI-RS configuration for Idle and Inactive

* [AT116-e][035][ePowSav] TRS CSI-RS for RRC-IDLE and RRC-INACTIVE (Apple)

Scope: Progress the topics of TRS CSI-RS for RRC-IDLE and RRC-INACTIVE based on contributions to this meeting. Identify agreements, and potential discussion points. Converge as much as possible offline. Cb Online if needed.

Intended outcome: Report with Agreements

Deadline: Wednesday W2 (Online CB if needed)

[R2-2111285](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111285.zip) Summary of agenda 8.9.3: Other aspects RAN2 impacts - TRS CSI-RS for RRC-IDLE and RRC-INACTIVE Apple

DISCUSSION

P1

- MTK think P1 can be agreed. Not sure why we need to discuss this in R2, we just follow R1.

- Ericsson think that there is no signalling needed for SIB based, and this is a R2 mechanism. Think that existing SI change is sufficient, think the only impact may be to be able to enable disable the use of the L1 availablity mechanism.

P3

- Apple reports there was a split view. A number of companies think that the same configuration would be used both in connected and Idle/inactive.

- Sony think this is about keeping the synch you have in Connected. Think this is the main motivation overall for this feature. Actually SIB distribution is less needed. Vivo has similar view to Sony. Think stationary UEs can use the same config as in connected and will stay in same cell.

- vivo think that not all TRS info will be in the SIB. Think there is a performance enhancement is the UE uses the connected config.

- Oppo think that the L1 availability indication cannot work if different UEs has different configuration, e.g. is UEs remember connected mode configuration instead of using SIB.

P10

- Apple report there was a split view.

- Chair wonder if there is a need to differentiate dep on DRX, eDRX.

- CATT think this is about SI update, can allow applicability to eDRX.

- QC think there are issues and we can postpone.

- Chair is not sure to what extent we should do redesigns to specifically adapt tp eDRX but can be discussed later.

* The scope of the new SIB-X is configurable (either cell or area scope) based on NW implementation.
* RAN2 to wait for additional RAN1 feedback, before finalizing aspects on SIB-X sizing, segmentation etc.
* RAN2 to wait for further RAN1 input on whether TRS/CSI-RS configuration can be split as common and TRS specific part.
* The new SIB-X can be made on demand, and it is up to NW configuration.
* There are no UE side impacts due to any additional NW side restriction on on-demand SIB-X.
* IDLE/INACTIVE UEs do NOT have to report any feedback on its TRS/CSI-RS resource usage.
* RAN2 assumes to support current RAN1 working agreement of L1 based signalling for TRS/CSI-RS availability indication. FFS whether it should be possible to enable / disable the TRS/CSI-RS L1 based availability mechanism by broadcast signalling.
* R2 assumes that additional TRS/CSI-RS configuration by dedicated signalling is not supported. Can revisit e.g. based on R1 provided info if needed.
* Postpone further discussion on TRS/CSI-RS applicability for eDRX UEs. Can consider later

[R2-2109492](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109492.zip) Discussion on signaling aspects of TRS/CSI-RS occasion(s) for idle/inactive Ues OPPO discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109648](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109648.zip) Discussion on TRS CSI-RS for RRC-IDLE and RRC-INACTIVE State UE Beijing Xiaomi Mobile Softwar discussion

[R2-2109738](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109738.zip) Discussion on TRS CSI-RS in idle inactive mode vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110052](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110052.zip) TRS/CSI-RS Signaling Aspects for IDLE/INACTIVE UEs Apple discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110335](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110335.zip) TRS/CSI-RS configuration for Idle/inactive mode UE Lenovo, Motorola Mobility discussion Rel-17

[R2-2110353](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110353.zip) Discussion on dedicated signaling of TRS/CSI-RS configuration Sony discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110403](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110403.zip) TRS/CSI-RS SI update mechanism for DRX and eDRX Ues CATT discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110416](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110416.zip) Provisioning of TRS occasions to Idle and Inactive UEs Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110540](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110540.zip) Discussion on potential TRS/CSI-RS Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110820](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110820.zip) Potential TRS/CSI-RS occasion(s) Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

* [035] 10 tdocs above are Noted

RLM BFD relaxation

* [AT116-e][036][ePowSav] RLM/BFD relaxation (XIaomi)

Scope: Progress the topics of RLM/BFD relaxation based on contributions to this meeting. Identify agreements, and potential discussion points. Converge as much as possible offline. Cb Online if needed.

Intended outcome: Report with Agreements

Deadline: Wednesday W2 (Online CB if needed)

[R2-2111528](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111528.zip) Summary of [AT116-e][036][ePowSav] RLM/BFD relaxation (Xiaomi) Xiaomi

DISCUSSION

P3:

- Intel wonder if we should wait for R4 feature list.

P2:

- Ericsson think P7 need to be discussed first.

- LG also think P7 and P3 need to be discussed together. LG think the network doesn't indicate exactly when to start stop. Chair think this is about configuration. Vivo agrees and think P2 and P7 are separate.

- Nokia also think the network need to be aware, same view as Ericsson.

- Huawei support P2

P7

- Huawei think same approach as redfcap can be applied, the UE indicates to the network and there is a network command.

- vivo think UE can report.

- Nokia + Several companies: Main point seems to be whether the network shall be aware that the UE is doing relaxation.

- **Chair:** ON whether the network need to be aware whether the UE performs relaxation or not, many companies think this is up to RAN4 and is being discussed in RAN4, and RAN2 should wait. Ericsson objects to capture that RAN2 is waiting for RAN4. Chair: this means that effectively R2 will wait for outcome of R4 discussions.

* RLM/BFD relaxation criteria are configured by dedicated signalling (e.g. *RadioLinkMonitoringConfig*) as a baseline, if RAN4 decides to provide parameters instead of predefined or by implementation.
* R2 assumes to use AS capability procedure to report UE capability of supporting RLM/BFD relaxation. Details FFS.
* RAN2 wait for RAN4 progress on the designing of low mobility criterion.
* RAN2 assumes the presence/absence of configuration for RLM/BFD relaxation criteria in signalling indicates to the UE whether the UE can/should evaluate the criteria.

[R2-2109454](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109454.zip) Criteria and configuration for BFD relaxations Qualcomm Incorporated discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109879](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109879.zip) Signalling aspect on criteria of RLM/BFD relaxation Intel Corporation discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2109739](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109739.zip) RAN2 impact on RLM/BFD relaxation for power saving vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110194](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110194.zip) Discussion on RLM\_BFD measurement relaxation Xiaomi Communications discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110541](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110541.zip) Discussion on criteria for the RLM/BFD relaxation Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2110404](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110404.zip) Configurations for RLM/BFD Relaxation CATT discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

## 8.10 NR Non-Terrestrial Networks (NTN)

(NR\_NTN\_solutions-Core; leading WG: RAN2; REL-17; WID: RP-211557)

Time budget: 1.5 TU

Tdoc Limitation: 5 tdocs

Email max expectation: 5 threads

[R2-2109586](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109586.zip) [Post115-e][101][NTN] Stage 2 running CR (Thales) THALES draftCR Rel-17 38.300 16.7.0 NR\_NTN\_solutions

### 8.10.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

Including outcome of:

[Post115-e][101][NTN] Stage 2 running CR (Thales)

[Post115-e][103][NTN] RRC running CR (Ericsson)

[Post115-e][104][NTN] MAC running CR (Interdigital)

[Post115-e][105][NTN] 38.304 running CR (ZTE)

[R2-2109307](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109307.zip) LS on extended NAS supervision timers at satellite access (C1-215074; contact: Ericsson) CT1 LS in Rel-17 5GSAT\_ARCH-CT To:RAN2 Cc:RAN2

[R2-2109312](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109312.zip) Reply LS on TA pre-compensation (R1-2108410; contact: OPPO) RAN1 LS in Rel-17 NR\_NTN\_solutions-Core To:RAN2

[R2-2109815](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109815.zip) Reply LS on UE location aspects in NTN (C1-216250; contact: Nokia) CT1 LS in Rel-17 5GSAT\_ARCH To:SA2 Cc:RAN2, RAN3

[R2-2111221](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111221.zip) LS on UE TA reporting (R1-2110663; contact: Ericsson) RAN1 LS in Rel-17 NR\_NTN\_solutions To:RAN2

[R2-2110466](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110466.zip) Stage-3 running 304 CR for NTN ZTE corporation, Sanechips draftCR Rel-17 38.304 16.6.0 B NR\_NTN\_solutions-Core

[R2-2110710](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110710.zip) Stage-3 running RRC CR for NTN Rel-17 Ericsson draftCR Rel-16 38.331 16.6.0 NR\_NTN\_solutions-Core Late

[R2-2110863](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110863.zip) MAC open issues in NTN - RAN2#116e InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110864](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110864.zip) Stage 3 NTN running CR for 38.321 - RAN2#116e InterDigital draftCR Rel-17 38.321 16.6.0 NR\_NTN\_solutions-Core Late

### 8.10.2 User Plane

#### 8.10.2.1 RACH aspects

[R2-2109498](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109498.zip) Discussion on RACH and TA report in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109551](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109551.zip) Discussion on UE-specific TA information reporting in NTN CATT discussion Rel-17 NR\_NTN\_solutions-Core Revised

[R2-2109660](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109660.zip) Further consideration on TA reporting Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

R2-2110018 RACH Type selection and TA report Xiaomi discussion Rel-17 Late

[R2-2110019](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110019.zip) RACH Type selection and TA report Xiaomi discussion Rel-17

[R2-2110044](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110044.zip) UE Reported UE Specific TA Pre-Compensation Apple discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110125](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110125.zip) TA report procedure Spreadtrum Communications discussion Rel-17

[R2-2110703](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110703.zip) Reporting information about UE specific TA and RA Type Selection Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110733](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110733.zip) Remaining issues on TA report ZTE Corporation, Sanechips discussion Rel-17

[R2-2110765](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110765.zip) TA reporting Remaining issues NEC Telecom MODUS Ltd. discussion

[R2-2110774](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110774.zip) Further considerations on TA report Samsung Research America discussion NR\_NTN\_solutions-Core

[R2-2110941](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110941.zip) Additional criterion for RA type selection Samsung Research America discussion

[R2-2110952](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110952.zip) Reporting information about UE specific TA pre-compensation in NTNs Ericsson discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111005](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111005.zip) Discussion on LCH-based RA type selection ASUSTeK discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111006](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111006.zip) Discussion on issue of restarting contention resolution timer ASUSTeK discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111140](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111140.zip) Discussion on RACH and TA report aspects LG Electronics Inc. discussion NR\_NTN\_solutions-Core

[R2-2111207](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111207.zip) Discussion on UE-specific TA information reporting in NTN CATT discussion Rel-17 NR\_NTN\_solutions-Core [R2-2109551](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109551.zip)

#### 8.10.2.2 Other MAC aspects

[R2-2109499](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109499.zip) Discussion on HARQ related aspects in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109552](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109552.zip) Co-existence issue of BSR over CG and BSR over 2-step RA CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109631](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109631.zip) Remaining issue on disabling uplink HARQ retransmission MediaTek Inc. discussion

[R2-2109632](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109632.zip) Round trip delay offset for configured grant timers MediaTek Inc. discussion R2-2108319

[R2-2109661](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109661.zip) Further consideration on LCP and HARQ Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

R2-2109922 On Updating SR-Prohibit Timer in NR-NTN MediaTek Inc. discussion Late

[R2-2109968](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109968.zip) HARQ process for SPS and CG Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110017](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110017.zip) Remaining issues related to HARQ retransmission state Xiaomi discussion Rel-17

[R2-2110045](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110045.zip) NTN HARQ Management Apple discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110126](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110126.zip) Discussion on HARQ and LCP remaining issues Spreadtrum Communications discussion Rel-17

[R2-2110308](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110308.zip) Remaining UP issues for NR NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2110354](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110354.zip) CG enhancements in NTN Sony discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110704](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110704.zip) Discussion on UL scheduling, DRX and other MAC aspects Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110734](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110734.zip) Remaining issues on HARQ aspects ZTE Corporation, Sanechips discussion Rel-17

[R2-2110859](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110859.zip) Remaining MAC open issues in NTN InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110926](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110926.zip) Updating SR-Prohibit Timer MediaTek Inc. discussion

[R2-2110951](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110951.zip) On configured scheduling, DRX, LCP, HARQ and SR/BSR in NTNs Ericsson discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111044](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111044.zip) Remaining Issue on LCP Restrictions and CG Impact in NTN CMCC discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111139](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111139.zip) Discussion on other MAC aspects LG Electronics Inc. discussion NR\_NTN\_solutions-Core

[R2-2111151](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111151.zip) Retransmission timer for HARQ state B ITL discussion Rel-17

[R2-2111154](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111154.zip) HARQ State A/B for CG aspects ITL discussion Rel-17

#### 8.10.2.3 RLC and PDCP aspects

[R2-2110548](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110548.zip) Consequences of long propagation delays on RLC Interdigital, Inc. discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110766](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110766.zip) RLC t-Reassembly timer NEC Telecom MODUS Ltd. discussion

[R2-2110925](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110925.zip) On RLC t-Reassembly for NTN Sequans Communications discussion Rel-17 NR\_NTN\_solutions-Core R2-2108460

[R2-2110950](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110950.zip) On RLC and PDCP for NTNs Ericsson discussion Rel-17 NR\_NTN\_solutions-Core

### 8.10.3 Control Plane

#### 8.10.3.1General aspects

Including Earth fixed/moving beams related issues, TAC update and LCS aspects

[R2-2109500](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109500.zip) Discussion on T300’s extension in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109553](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109553.zip) Discussion on UE coarse location information report in NTN CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109587](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109587.zip) Validity timer of a broadcasted TAC THALES, Ericsson discussion Rel-17 NR\_NTN\_solutions

[R2-2109636](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109636.zip) Consideration on RAN2-determined NTN UE capabilities Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109969](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109969.zip) Coarse UE location report in RRC\_CONNECTED Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109973](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109973.zip) Discussion on UE reporting of selected TAI vivo, Nokia, Nokia Shanghai Bell, Ericsson discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109974](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109974.zip) Discussion on UE capability for Rel-17 NR NTN vivo discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109975](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109975.zip) Discussion on the remaining issue on TAC update vivo discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110043](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110043.zip) NTN Ephemeris definition and signaling Apple discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110127](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110127.zip) Discussion on stop serving time of NTN cell Spreadtrum Communications discussion Rel-17

[R2-2110136](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110136.zip) Discussion on TAC update in NTN Spreadtrum Communications discussion Rel-17

[R2-2110309](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110309.zip) Considerations on ephemeris provision for NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2110355](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110355.zip) Event triggered location reporting in NTN Sony discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110386](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110386.zip) DRAFT Reply LS on extended NAS supervision timers at satellite access Ericsson LS out Rel-17 NR\_NTN\_solutions-Core, 5GSAT\_ARCH-CT To:CT1 Cc:RAN3, SA2

[R2-2110388](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110388.zip) Discussion on reply LS to CT1 on extended NAs supervision timers at satellite access Ericsson discussion NR\_NTN\_solutions-Core

[R2-2110467](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110467.zip) UE location report and TAC in NTN ZTE corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110528](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110528.zip) Further considerations on TAC selection in NTN Samsung R&D Institute UK discussion

[R2-2110614](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110614.zip) Final views on location aspects for Rel-17 NTN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111007](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111007.zip) Discussion on event triggered based UE location report ASUSTeK discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111043](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111043.zip) Discussion on UE Coarse Location Information Report in NTN CMCC discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111110](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111110.zip) Discussion on UE location reporting in NTN Xiaomi discussion

#### 8.10.3.2 Idle/Inactive mode

Idle/inactive mode specific issues.

[R2-2109501](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109501.zip) Discussion on idle/inactive mode procedures in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109554](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109554.zip) Further Discussion on the Leftover Issues of IDLE/INACTIVE CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109637](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109637.zip) Discussion on enhancements to cell reselection Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109639](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109639.zip) Discussion on TN prioritization over NTN for idle mode Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109765](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109765.zip) Cell selection and reselection enhancements for NTN China Telecom discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109970](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109970.zip) Enhancement to cell selection and reselection Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109976](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109976.zip) Remaining issues on cell reselection for NTN vivo discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110046](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110046.zip) NTN Cell Selection and Cell Reselection Apple discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110211](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110211.zip) NTN-TN Mobility Enhancement in IDLE and INACTIVE State FGI, Asia Pacific Telecom discussion

[R2-2110228](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110228.zip) Remaining issues in NTN idle mode LG Electronics Inc. discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110265](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110265.zip) Discussion on cell reselection CMCC discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110275](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110275.zip) Discussion on cell reselection Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110356](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110356.zip) Idle mode enhancement in NTN Sony discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110375](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110375.zip) Idle mode aspects for NTN Ericsson discussion NR\_NTN\_solutions-Core Late

[R2-2110468](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110468.zip) Consideration on the system information and idle mode mobility for intra-NTN and TN-NTN case ZTE corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110768](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110768.zip) NTN to TN mobility in Idle or Inactive mode NEC Telecom MODUS Ltd. discussion

[R2-2110769](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110769.zip) Time and Location-assisted cell reselection NEC Telecom MODUS Ltd. discussion

[R2-2110862](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110862.zip) Cell reselection for earth moving cells InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110943](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110943.zip) Further considerations on idle/inactive behaviours Samsung Research America discussion

[R2-2111111](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111111.zip) Cell selection and reselection enhancements for NTN Xiaomi discussion

#### 8.10.3.3 Connected mode

Connected mode specific issues.

[R2-2109502](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109502.zip) Discussion on mobility management for connected mode UE in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109555](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109555.zip) Futher discussion on NTN mobility aspect CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109634](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109634.zip) Efficient Configuration of SMTC and Measurement Gaps in NR-NTN MediaTek Inc. discussion R2-2108326

[R2-2109635](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109635.zip) Mobility for NTN-TN scenarios MediaTek Inc. discussion R2-2108329

[R2-2109638](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109638.zip) Discussion on remaining issues on SMTC Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109971](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109971.zip) Open issues in CHO Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2109972](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109972.zip) SMTC and MG enhancements Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core R2-2107566

[R2-2109977](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109977.zip) Remaining issues on connected mode mobility for NTN vivo discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110229](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110229.zip) Remaining issues in NTN CHO LG Electronics Inc. discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110266](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110266.zip) Further discussion on intra-NTN mobility CMCC discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110267](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110267.zip) Further discussion on SMTC and measurement Gap configuration for NTN CMCC discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110276](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110276.zip) Discussion on CHO in NTN Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110277](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110277.zip) Discussion on SMTC and measurement gap configuration Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110283](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110283.zip) Discussion on signaling and data transmission issues of NTN CHO ITRI discussion NR\_NTN\_solutions-Core

[R2-2110310](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110310.zip) UE assistance for measurement gap and SMTC configuration in NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2110311](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110311.zip) Connected mobility for NTN/TN continuity Lenovo, Motorola Mobility discussion Rel-17

[R2-2110312](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110312.zip) Remaining issues for CHO in NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2110340](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110340.zip) Connected mode aspects for NTN Ericsson discussion NR\_NTN\_solutions-Core

[R2-2110357](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110357.zip) SMTC enhancement in NTN Sony discussion Rel-17 NR\_NTN\_solutions-Core R2-2108067

[R2-2110358](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110358.zip) Signaling storm during HOs Sony discussion Rel-17 NR\_NTN\_solutions-Core R2-2108065

[R2-2110384](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110384.zip) SMTC and measurement gap enhancements LG Electronics Inc. discussion Rel-17

[R2-2110469](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110469.zip) Consideration on CHO and measurements ZTE corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110612](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110612.zip) More thoughts on mobility in Rel-17 NTN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110613](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110613.zip) Final views on SMTC and measurement gaps for Rel-17 NTN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core R2-2107521

[R2-2110815](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110815.zip) Measurements and handover Samsung Research America discussion NR\_NTN\_solutions-Core

[R2-2110860](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110860.zip) UE location reporting in NTN InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2110861](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110861.zip) UE-specific TA reporting in connected mode InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2111028](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111028.zip) Discussion on connected mode aspects for NTN Xiaomi Communications discussion

[R2-2111166](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111166.zip) Remaining Issues on SMTC and measurement Gap configuration for NTN Rakuten Mobile, Inc discussion Rel-17

## 8.11 NR positioning enhancements

(NR\_pos\_enh-Core; leading WG: RAN1; REL-17; WID: RP-210903)

Time budget: 2 TU

Tdoc Limitation: 7 tdocs

Email max expectation: 7 threads

### 8.11.1 Organizational

Rapporteur input. Incoming LS etc. This AI is reserved for rapporteur and organizational inputs; documents in this AI do not count towards the tdoc limitation.

[R2-2109316](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109316.zip) Reply LS on determination of location estimates in local co-ordinates (R1-2108509; contact: Ericsson) RAN1 LS in Rel-17 5G\_eLCS\_ph2 To:SA2 Cc:RAN2, RAN3

[R2-2109322](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109322.zip) LS to RAN2 on SRS for Positioning Transmission by UEs in RRC\_INACTIVE State (R1-2108564; contact: Intel) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2

[R2-2109328](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109328.zip) LS on PRS measurement outside the measurement gap (R1-2108639; contact: Huawei) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2, RAN3, RAN4

[R2-2109329](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109329.zip) LS on beam/antenna information for DL AOD in NR positioning (R1-2108646; contact: Ericsson) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2, RAN3

[R2-2109339](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109339.zip) Reply LS on determination of location estimates in local co-ordinates (R3-214312; contact: Huawei) RAN3 LS in Rel-17 5G\_eLCS\_ph2 To:SA2 Cc:RAN1, RAN2

[R2-2109345](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109345.zip) Reply LS on Positioning Reference Units (R3-214457; contact: Ericsson) RAN3 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2 Cc:SA2

[R2-2109392](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109392.zip) Liaison Note to 3GPP RAN 2, Reply comments to letter R2-2106596 (RTCM Paper 2021-SC134-0113) RTCM LS in To:RAN2

[R2-2111211](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111211.zip) LS on support of SP-SRS for positioning by RRC\_INACTIVE UEs (R1-2110598; contact: Intel) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2

[R2-2111216](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111216.zip) LS on DL PRS reception priority by RRC\_INACTIVE UEs (R1-2110644; contact: Intel) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN4 Cc:RAN2

[R2-2109480](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109480.zip) [Draft] Response LS on the Positioning Reference Units (PRUs) for positioning enhancement CATT LS out Rel-17 To:RAN1,SA2 Cc:RAN3

[R2-2109673](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109673.zip) Email discussion report on [609][POS] RAT-dependent stage 2 CR (Intel) Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109674](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109674.zip) Email discussion [609] Running 38.305 CR for Positioning WI on RAT dependent positioning methods Intel Corporation draftCR Rel-17 38.305 16.6.0 B NR\_pos\_enh-Core

[R2-2109807](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109807.zip) Discussion RTCM reply to RAN2 on GNSS integrity coordination ESA, Intel Corporation discussion Rel-17 FS\_NR\_pos\_enh

[R2-2110803](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110803.zip) Beam/antenna information for DL AOD in NR positioning Ericsson discussion Rel-17

[R2-2110997](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110997.zip) Email discussion report on [614][POS] GNSS Positioning Integrity Stage 2 CR (InterDigital) InterDigital, Inc. discussion Rel-17 NR\_pos\_enh-Core

[R2-2111012](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111012.zip) Running CR of 38.305 for GNSS Positioning Integrity InterDigital, Inc. draftCR Rel-17 38.305 16.6.0 B NR\_pos\_enh-Core

[R2-2111013](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111013.zip) Running CR of 36.305 for GNSS Positioning Integrity InterDigital, Inc. draftCR Rel-16 36.305 16.4.0 B NR\_pos\_enh-Core

### 8.11.2 Latency enhancements

Enhancements of signalling, and procedures for improving positioning latency of the Rel-16 NR positioning methods, for DL and DL+UL positioning methods. This agenda item will utilise a summary document.

Including outcome of [Post115-e][605][POS] Pre-configured assistance data (Intel)

[R2-2109460](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109460.zip) Discussion on positioning latency reduction ZTE discussion

[R2-2109481](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109481.zip) Discussion on Enhancements for Latency Reduction CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2109663](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109663.zip) Leftover issues on Latency reduction Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109665](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109665.zip) Summary of [Post115-e][605][POS] Pre-configured assistance data (Intel) Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109824](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109824.zip) Positioning Latency Reduction Enhancements Lenovo, Motorola Mobility discussion Rel-17

[R2-2109915](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109915.zip) Time T and Measurement Gap for Measurement Time Window Ericsson discussion Rel-17

[R2-2109978](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109978.zip) Discussion on latency enhancement vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110103](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110103.zip) Further consideration of positioning latency enhancements OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2110178](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110178.zip) Discussion on latency reduction techniques from other groups Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110179](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110179.zip) Text Proposal for finer granularity of responseTime Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110180](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110180.zip) Discussion on pre-configured PRS Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110336](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110336.zip) Discussion on the response time Samsung discussion Rel-17 NR\_pos\_enh-Core

[R2-2110359](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110359.zip) Considerations on positioning latency Sony discussion NR\_pos\_enh-Core

[R2-2110798](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110798.zip) PRS Measurements outside measurement Gap Ericsson discussion Rel-17

[R2-2110822](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110822.zip) Remaining Issues on Scheduling Location in Advance Qualcomm Incorporated discussion

[R2-2110928](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110928.zip) Discussion on Enhancements for Latency Reduction InterDigital, Inc. discussion NR\_pos\_enh

[R2-2111075](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111075.zip) Discussion on the priority rule for latency reduction CMCC discussion Rel-17 NR\_pos\_enh-Core

[R2-2111081](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111081.zip) Simulation study for multiple QoS class handling for latency reduction Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111083](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111083.zip) Handling of multiple QoS for latency reduction Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111084](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111084.zip) Discussion on the Pre-configured Assistance Data Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111086](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111086.zip) Latency reduction via configured grant for positioning Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111105](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111105.zip) Positioning enhancements on latency reduction Xiaomi discussion

### 8.11.3 RRC\_INACTIVE

Methods, measurements, signalling and procedures to support positioning for UEs in RRC\_ INACTIVE state, for UE-based and UE-assisted positioning solutions. UL and DL+UL NR positioning methods and gNB positioning measurements for UEs in RRC\_INACTIVE are treated at lower priority. This agenda item will utilise a summary document.

Including outcome of [Post115-e][608][POS] PRS configuration and measurement in RRC\_INACTIVE (vivo)

[R2-2109461](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109461.zip) Discussion on positioning in RRC INACTIVE state ZTE discussion

R2-2109482 Discussion on UL NR positioning in RRC\_INACTIVE CATT discussion Rel-17 NR\_pos\_enh-Core Withdrawn

[R2-2109758](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109758.zip) Supporting positioning in RRC\_INACTIVE state OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2109759](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109759.zip) Discussion on UL Positioning methods in RRC\_INACTIVE state OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2109825](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109825.zip) On Positioning in RRC\_INACTIVE state Lenovo, Motorola Mobility discussion Rel-17

[R2-2109918](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109918.zip) Discussion on RRC Inactive mode Positioning Ericsson discussion Rel-17

[R2-2109979](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109979.zip) Summary of [Post115-e][608][POS] PRS configuration and measurement in RRC\_INACTIVE vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2109980](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109980.zip) Discussion on UL positioning in RRC\_INACTIVE vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110021](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110021.zip) Support of UL&UL+DL positioning in RRC\_INACTIVE Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2110174](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110174.zip) Way-forward for RRC\_INACTIVE positioning Huawei, CATT, China Unicom, CMCC, Fraunhofer, Futurewei, HiSilicon, Intel Corporation, Spreadtrum Communications, OPPO, VIVO, Xiaomi, ZTE Corporation discussion NR\_pos\_enh-Core

[R2-2110249](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110249.zip) UE Positioning in RRC\_INACTIVE mode Fraunhofer IIS; Fraunhofer HHI discussion Rel-17

[R2-2110337](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110337.zip) Discussion on the measurement reporting in RRC\_INACTIVE Samsung discussion Rel-17 NR\_pos\_enh-Core

[R2-2110360](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110360.zip) Considerations on positioning RRC Inactive Sony discussion Rel-17 NR\_pos\_enh-Core

[R2-2110823](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110823.zip) Remaining issues for positioning of UEs in RRC\_INACTIVE State Qualcomm Incorporated discussion

[R2-2110824](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110824.zip) [draft] LS on DL-only and RAT-Independent Positioning in RRC\_INACTIVE State Qualcomm Incorporated LS out To:SA2 Cc:RAN3

[R2-2110929](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110929.zip) Discussion on Positioning in RRC INACTIVE state InterDigital, Inc. discussion NR\_pos\_enh

[R2-2110930](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110930.zip) Discussion on reporting of positioning information using SDT InterDigital, Inc. discussion NR\_pos\_enh

[R2-2111076](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111076.zip) Considerations on Positioning in RRC\_INACTIVE state CMCC discussion Rel-17 NR\_pos\_enh-Core

[R2-2111106](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111106.zip) Discussion on positioning for UEs in RRC Inactive Xiaomi discussion

### 8.11.4 On-demand PRS

Specify UE-initiated and LMF-initiated on-demand transmission and reception of DL PRS for DL and DL+UL positioning for UE-based and UE-assisted positioning solutions. This agenda item will utilise a summary document.

Including outcome of [Post115-e][606][POS] MO-LR for on-demand PRS (CATT)

[R2-2109462](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109462.zip) Discussion on on-demand PRS ZTE discussion

[R2-2109483](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109483.zip) Report of [Post115-e][606][POS] MO-LR for on-demand PRS (CATT) CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2109484](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109484.zip) Discussion on on-demand PRS CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2109664](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109664.zip) Support of On-Demand PRS request Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109757](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109757.zip) Discussion on on-demand DL-PRS OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2109826](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109826.zip) Support of On-Demand DL-PRS Lenovo, Motorola Mobility discussion Rel-17

[R2-2109916](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109916.zip) On demand PRS Ericsson discussion Rel-17

[R2-2109981](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109981.zip) Discussion on on-demand PRS vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110040](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110040.zip) Stage-2 procedure for on-demand PRS Apple discussion NR\_pos\_enh-Core

[R2-2110175](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110175.zip) Discussion on on-demand PRS Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110247](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110247.zip) On-demand PRS Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2110361](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110361.zip) Considerations on positioning PRS On-demand Sony discussion Rel-17 NR\_pos\_enh-Core

[R2-2110825](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110825.zip) Remaining issues for on-demand DL-PRS Qualcomm Incorporated discussion

[R2-2110931](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110931.zip) Discussion on procedures for On-demand PRS for DL-based positioning InterDigital, Inc. discussion NR\_pos\_enh

[R2-2110932](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110932.zip) Discussion on procedure for On-demand PRS for DL+UL based positioning InterDigital, Inc. discussion NR\_pos\_enh

[R2-2110956](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110956.zip) Clarifications to on-demand PRS Stage 2 Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

[R2-2110957](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110957.zip) UE-initiated on-demand PRS requests Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

[R2-2110958](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110958.zip) Pre-configured assistance data for on-demand PRS Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

[R2-2110966](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110966.zip) [Draft] LS on MO-LR for on-demand PRS CATT LS out Rel-17 NR\_pos\_enh-Core To:SA2

[R2-2111090](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111090.zip) [Draft] LS on stage-2 on-demand PRS procedure CATT LS out Rel-17 NR\_pos\_enh-Core To:RAN3

[R2-2111107](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111107.zip) Positioning enhancement to on-demand DL PRS Xiaomi discussion

### 8.11.5 GNSS positioning integrity

Signalling, and procedures to support GNSS positioning integrity determination. This agenda item will utilise a summary document.

Including outcome of [Post115-e][607][POS] Integrity assistance data (Huawei)

[R2-2109463](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109463.zip) Discussion on positioning integrity ZTE discussion

[R2-2109920](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109920.zip) On GNSS Integrity Ericsson discussion Rel-17

[R2-2109982](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109982.zip) Discussion on open issues for GNSS positioning integrity vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110102](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110102.zip) Discussion on supporting positioing integrity in RAN OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2110141](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110141.zip) Discussion on GNSS Integrity Assistance Data Swift Navigation, Mitsubishi Electric Corporation, Intel Corporation, Ericsson discussion Rel-17

[R2-2110176](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110176.zip) Remaining issues on positioning integrity Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110181](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110181.zip) Summary of [Post115-e][607][POS] Integrity assistance data Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110246](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110246.zip) UE-aided detection of threat to GNSS systems and assistance data signaling Fraunhofer IIS; Fraunhofer HHI; Ericsson; ESA discussion R2-2107147

[R2-2110445](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110445.zip) On GNSS Positioning Integrity Nokia, Nokia Shanghai Bell discussion Rel-17 FS\_NR\_pos\_enh

[R2-2110933](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110933.zip) Discussion on procedures and signalling for GNSS positioning integrity InterDigital, Inc. discussion NR\_pos\_enh

[R2-2111087](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111087.zip) Consideration on the signalling design for Positioning Integrity Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111108](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111108.zip) Discussion on GNSS positioning integrity Xiaomi discussion

### 8.11.6 A-GNSS enhancements

Including support of BDS B2a and B3I signals and support of NavIC.

[R2-2109485](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109485.zip) Introduction of B2a and B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 36.305 16.4.0 B NR\_pos\_enh-Core R2-2107138

[R2-2109486](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109486.zip) Introduction of B2a and B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 38.305 16.6.0 B NR\_pos\_enh-Core R2-2107139

[R2-2109487](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109487.zip) Introduction of B2a signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 37.355 16.6.0 B NR\_pos\_enh-Core R2-2107140

[R2-2109488](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109488.zip) Introduction of B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 37.355 16.6.0 B NR\_pos\_enh-Core R2-2107141

### 8.11.7 Other

Input on other WI objectives.

[R2-2109489](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109489.zip) Discussion on Positioning Reference Units(PRUs) CATT, ZTE Coroporation, Intel Coroporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109827](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109827.zip) Support of Positioning Reference Units Lenovo, Motorola Mobility discussion Rel-17

[R2-2109917](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109917.zip) On high accuracy aspects Ericsson discussion Rel-17

[R2-2109919](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109919.zip) On the Positioning Reference Units aspects Ericsson discussion Rel-17

[R2-2109983](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109983.zip) Discussion on support for positioning reference unit vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110039](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110039.zip) Stage-3 impacts of PRU support Apple discussion NR\_pos\_enh-Core

[R2-2110177](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110177.zip) Discussion on PRU Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110826](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110826.zip) Remaining issues for Positioning Reference Units Qualcomm Incorporated discussion

[R2-2110827](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110827.zip) [draft] Response LS on Positioning Reference Units (PRUs) for enhancing positioning performance Qualcomm Incorporated LS out To:SA2, RAN1 Cc:RAN3

[R2-2110934](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110934.zip) Discussion on supporting Positioning Reference Units InterDigital, Inc. discussion NR\_pos\_enh

[R2-2111089](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111089.zip) Discussion on incoming LSs from RAN1 on positioning vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2111109](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111109.zip) Discussion on how to manage PRU Xiaomi discussion

## 8.12 Reduced Capability

(NR\_redcap-Core; leading WG: RAN1; REL-17; WID: RP-211574)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 4 threads

### 8.12.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

Including outcome of:

[Post115-e][106][RedCap] Running CRs (Ericsson)

[Post115-e][107][RedCap] Stage 2 Running CR (Nokia)

[Post115-e][108][RedCap] 38.306 Running CR (Intel)

[Post115-e][109][RedCap] MAC running CR (vivo)

[R2-2109305](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109305.zip) Reply LS on lower bound for eDRX cycle length (C1-214961; contact: Qualcomm) CT1 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:SA2, RAN3

[R2-2109325](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109325.zip) LS on RAN1 agreements on RAN2-led features for RedCap (R1-2108631; contact: NTT DOCOMO) RAN1 LS in Rel-17 NR\_redcap-Core To:RAN2

[R2-2109342](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109342.zip) Reply LS on the coordination between gNBs on the supporting of RedCap UEs (R3-214422; contact: Ericsson) RAN3 LS in Rel-17 NR\_redcap-Core To:RAN2

[R2-2109378](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109378.zip) Reply LS on introducing extended DRX for RedCap UEs (S2-2106978; contact: Qualcomm) SA2 LS in Rel-17 NR\_redcap-Core To:RAN2, RAN3, CT1

[R2-2111215](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111215.zip) Reply LS on L2 buffer size reduction (R1-2110638; contact: Intel) RAN1 LS in Rel-17 NR\_redcap-Core To:RAN2

[R2-2109666](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109666.zip) Email discussion report on [108][RedCap] 38.306 Running CR (Intel) Intel Corporation discussion Rel-17 NR\_redcap

[R2-2109667](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109667.zip) Email discussion [108]Running 38.331 CR for the RedCap WI on capablities Intel Corporation draftCR Rel-17 38.331 16.6.0 B NR\_redcap

[R2-2109668](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109668.zip) Email discussion [108]Running 38.306 CR for the RedCap WI on capablities Intel Corporation draftCR Rel-17 38.306 16.6.0 B NR\_redcap

[R2-2109740](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109740.zip) Email discussion [109] Running MAC CR for RedCap vivo (Rapporteur) draftCR Rel-17 38.321 16.6.0 NR\_redcap-Core

[R2-2110094](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110094.zip) RA-RNTI overlap in RedCap and it’s impact on unified RACH work Apple discussion Rel-17 NR\_redcap-Core

[R2-2110095](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110095.zip) Making ND-SSB work for RedCap in Rel-17 Apple discussion Rel-17 NR\_redcap-Core Late

[R2-2110727](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110727.zip) LS on use of NCD-SSB instead of CD-SSB for RedCap UE (R1-2110600; contact: Ericsson) RAN1 LS in Rel-17 NR\_redcap-Core To:RAN2, RAN4

R2-2110804 On the use of NCD-SSB instead of CD-SSB for RedCap UE MediaTek Inc. discussion Rel-17 NR\_redcap-Core Late

[R2-2110821](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110821.zip) Running 38300 CR for RedCap Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 16.7.0 B NR\_redcap-Core

[R2-2111095](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111095.zip) Running 38.304 CR for the RedCap WI Ericsson draftCR Rel-17 38.304 16.6.0 B NR\_redcap-Core Late

[R2-2111097](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111097.zip) Running 38.331 CR for the RedCap WI Ericsson draftCR Rel-17 38.331 16.6.0 B NR\_redcap-Core Late

[R2-2111100](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111100.zip) Discussion on the coordination between gNBs supporting RedCap UEs Ericsson discussion NR\_redcap-Core

[R2-2111102](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111102.zip) [Draft] LS reply on the coordination between gNBs supporting RedCap UEs Ericsson LS out NR\_redcap-Core To:RAN3

### 8.12.2 Framework for reduced capabilities

No contribution is expected to this agenda item but directly to the sub-agenda items.

#### 8.12.2.1 Definition of RedCap UE type and reduced capabilities

[R2-2109446](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109446.zip) Support for fallback operation by RedCap UEs Qualcomm Incorporated discussion Rel-17 FS\_NR\_redcap

[R2-2109576](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109576.zip) Definition and reduced capabilities for RedCap UE, and NCD-SSB related LS Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

[R2-2109669](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109669.zip) Open issues on RedCap capabilities Intel Corporation discussion Rel-17 NR\_redcap

[R2-2109741](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109741.zip) Discussion on NCD SSB and UE type for RedCap UEs vivo, Guangdong Genius discussion Rel-17 NR\_redcap-Core

[R2-2110093](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110093.zip) Optional support of more than 8 DRB for RedCap Apple, Facebook Inc. discussion Rel-17 NR\_redcap-Core

[R2-2110134](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110134.zip) Discussion on L2 buffer size reduction for Redcap UE Spreadtrum Communications discussion Rel-17

[R2-2110709](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110709.zip) Discussion on reduced capabilities LG Electronics UK discussion Rel-17

[R2-2110771](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110771.zip) Definition of RedCap UE and discussion on capabilities Ericsson discussion

[R2-2110881](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110881.zip) Discussion on L2 buffer size reduction Sierra Wireless. S.A. discussion

#### 8.12.2.2 Identification, access and camping restrictions

Early identification of RedCap UEs (e.g. details of msg3 early identification). Common Aspects related to RACH partitioning (due to msg1 early identification) shall be submitted to 8.18.

System information indication for camping restrictions.

[R2-2109447](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109447.zip) Reply LS to RAN3 on the coordination between gNBs on the supporting RedCap UEs Qualcomm Incorporated LS out Rel-17 NR\_redcap-Core To:RAN3

[R2-2109448](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109448.zip) Reply LS on use of NCD-SSB instead of CD-SSB for RedCap UE Qualcomm Incorporated LS out Rel-17 NR\_redcap-Core To:RAN1, RAN4

[R2-2109494](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109494.zip) Discussion on early identification and access restrictions OPPO discussion Rel-17 NR\_redcap-Core

[R2-2109536](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109536.zip) Cell barring aspects and early indication in Msg3\_MsgA Samsung Electronics Co., Ltd discussion Rel-17 NR\_redcap-Core

[R2-2109577](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109577.zip) Identification and access restriction of RedCap UE Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

[R2-2109646](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109646.zip) Neighbour cell information and cell (re)selection for RedCap UE DENSO CORPORATION discussion Rel-17 NR\_redcap-Core

[R2-2109670](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109670.zip) Early identification and camping restrictions for RedCap UE Intel Corporation discussion Rel-17 NR\_redcap

[R2-2109698](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109698.zip) Discussion on the remaining issues of early identification CATT discussion Rel-17 NR\_redcap-Core

[R2-2109723](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109723.zip) Discussion on potential interference issues in networks partially supporting RedCap UE cell selection/re-selection NEC Corporation discussion

[R2-2109742](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109742.zip) Identification and access restrictions for RedCap UEs vivo, Guangdong Genius discussion Rel-17 NR\_redcap-Core

[R2-2109752](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109752.zip) Camping restrictions of RedCap UE Fujitsu discussion Rel-17 NR\_redcap-Core R2-2107652

[R2-2109819](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109819.zip) Discussion on UE access restrictions for Redcap devices Beijing Xiaomi Mobile Softwar discussion

[R2-2109820](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109820.zip) Discussion on early Identification for Redcap devices Beijing Xiaomi Mobile Softwar discussion

[R2-2109897](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109897.zip) Identification, access and camping restrictions for RedCap UE ZTE Corporation, Sanechips discussion Rel-17 NR\_redcap-Core

[R2-2110096](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110096.zip) System information indication for camping restrictions of RedCap UE China Telecommunications discussion Rel-17

[R2-2110135](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110135.zip) Discussion on the open issues of early indication for RedCap UE Spreadtrum Communications discussion Rel-17

[R2-2110202](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110202.zip) Access Restriction for RedCap UE NTT DOCOMO INC. discussion Rel-17

[R2-2110535](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110535.zip) Discussion on access restrictions and early identification CMCC discussion Rel-17 NR\_redcap-Core

[R2-2110536](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110536.zip) Discussion on RAN3 LS CMCC discussion Rel-17 NR\_redcap-Core

[R2-2110537](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110537.zip) Corrections for cellBarred in MIB handling for RedCap UE InterDigital, Europe, Ltd. discussion Rel-17

[R2-2110585](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110585.zip) Discussion on SI indication for camping restrictions for RedCap UEs LG Electronics UK discussion Rel-17

[R2-2110659](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110659.zip) Network behaviour for RedCap Msg3 and cell barring BT plc discussion Rel-17

[R2-2110664](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110664.zip) Access restrictions for RedCap NEC discussion Rel-17 NR\_redcap-Core

[R2-2110773](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110773.zip) Use of NCD-SSB instead of CD-SSB for RedCap UEs Ericsson discussion Late

[R2-2110793](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110793.zip) On RedCap UE behaviors when missing essential system information Futurewei Technologies discussion Rel-17 NR\_redcap-Core

[R2-2110811](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110811.zip) REDCAP UE early identification Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

[R2-2110880](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110880.zip) Early identification and camping restrictions for RedCap UE Sierra Wireless. S.A. discussion

[R2-2111098](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111098.zip) Early indication & access restriction for RedCap UEs Ericsson discussion NR\_redcap-Core

[R2-2111150](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111150.zip) System Information and supporting for RedCap UEs KDDI Corporation discussion Rel-17

### 8.12.3 UE power saving and battery lifetime enhancement

No contribution is expected to this agenda item but directly to the sub-agenda items.

#### 8.12.3.1 eDRX cycles

Extended DRX enhancements for RRC Inactive and Idle.

[R2-2109449](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109449.zip) Remaining issues on eDRX Qualcomm Incorporated discussion Rel-17 FS\_NR\_redcap

[R2-2109495](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109495.zip) Discussion on eDRX for RedCap Ues OPPO discussion Rel-17 NR\_redcap-Core

[R2-2109537](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109537.zip) UE\_ID for extended DRX cycle and SI update aspects Samsung Electronics Co., Ltd discussion Rel-17 NR\_redcap-Core

[R2-2109578](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109578.zip) eDRX for RedCap UE Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

[R2-2109649](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109649.zip) Discussion on e-DRX for Redcap Devices Beijing Xiaomi Mobile Softwar discussion

[R2-2109671](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109671.zip) Leftover issues for eDRX Intel Corporation discussion Rel-17 NR\_redcap

[R2-2109699](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109699.zip) Further Discussion on eDRX for NR RRC Inactive and Idle CATT discussion Rel-17 NR\_redcap-Core

[R2-2109743](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109743.zip) Discussion on eDRX for RedCap UEs vivo, Guangdong Genius discussion Rel-17 NR\_redcap-Core

[R2-2109898](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109898.zip) Discussion on eDRX for RedCap UE ZTE Corporation, Sanechips discussion Rel-17 NR\_redcap-Core

[R2-2110151](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110151.zip) Leftover issues on derivation of PTW\_start DENSO CORPORATION discussion Rel-17 NR\_redcap-Core

[R2-2110331](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110331.zip) Consideration on eDRX for RedCap UE Lenovo, Motorola Mobility discussion Rel-17

[R2-2110584](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110584.zip) Discussion on eDRX for RRC\_IDLE and RRC\_INACTIVE LG Electronics UK discussion Rel-17

[R2-2110755](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110755.zip) Remaining issues for eDRX MediaTek Inc. discussion Rel-17 NR\_redcap-Core

[R2-2111099](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111099.zip) Extended DRX for Reduced Capability UEs Ericsson discussion NR\_redcap-Core

[R2-2111129](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111129.zip) Remaining issues in paging monitoring Samsung discussion Rel-17

#### 8.12.3.2 RRM relaxations

Measurement-based stationarity criterion and related not-at-cell-edge criterion, for RRC Inactive, Idle and Connected.

[R2-2109450](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109450.zip) Remaining issues on RRM relaxation Qualcomm Incorporated discussion Rel-17 FS\_NR\_redcap

[R2-2109496](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109496.zip) Discussion on RRM relax for RRC idle OPPO discussion Rel-17 NR\_redcap-Core

[R2-2109497](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109497.zip) Discussion on RRM relax for RRC connected OPPO discussion Rel-17 NR\_redcap-Core

[R2-2109575](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109575.zip) NR-REDCAP stationarity relaxations in case of RRC\_CONNECTED THALES discussion

[R2-2109579](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109579.zip) RRM measurement relaxation for RedCap UE Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

[R2-2109588](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109588.zip) On the efficient RRM relaxation on RRC connected mode Fraunhofer IIS, Fraunhofer HHI discussion Rel-17 R2-2107145

[R2-2109672](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109672.zip) RRM measurement relaxation for RedCap UE in RRC\_CONNECTED Intel Corporation discussion Rel-17 NR\_redcap

[R2-2109700](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109700.zip) Further Discussion on RRM relaxations CATT discussion Rel-17 NR\_redcap-Core

[R2-2109744](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109744.zip) RRM relaxation for neighboring cell for RedCap UEs vivo, Guangdong Genius discussion Rel-17 NR\_redcap-Core

[R2-2109893](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109893.zip) Further discussion on RRM relaxation for RedCap UE ZTE Corporation, Sanechips discussion Rel-17 NR\_redcap-Core

[R2-2110105](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110105.zip) RRM relaxation criterion of RedCap UE China Telecommunications discussion Rel-17

[R2-2110193](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110193.zip) Discussion on RRM measurement relaxation for redcap Xiaomi Communications discussion Rel-17 NR\_redcap-Core

[R2-2110230](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110230.zip) Remaining issues in RRM relaxation LG Electronics Inc. discussion Rel-17 NR\_redcap-Core

[R2-2110287](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110287.zip) RRM relaxation for RedCap UEs SHARP Corporation discussion R2-2107873

[R2-2110564](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110564.zip) Details on RRM relaxation Ericsson discussion Rel-17 NR\_redcap-Core

[R2-2110816](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110816.zip) On RRM relaxations for REDCAP Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

[R2-2110817](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110817.zip) On RRM relaxations in CONNECTED Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

[R2-2111130](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111130.zip) RRM measurement relaxation in RedCap Samsung discussion Rel-17

## 8.13 SON/MDT

(NR\_ENDC\_SON\_MDT\_enh-Core; leading WG: RAN3; REL-17; WID: RP-201281)

Time budget: 1 TU

Tdoc Limitation: 6 tdocs

Email max expectation: 6 threads

### 8.13.1 Organizational

[R2-2109334](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109334.zip) LS on Area scope configuration and Frequency band info in MDT configuration (R3-212824; contact: Huawei) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

[R2-2109335](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109335.zip) LS on UP measurements for Successful Handover Report (R3-212935; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

[R2-2109336](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109336.zip) Reply LS on UE context keeping in the source cell (R3-212944; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

[R2-2109343](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109343.zip) LS Reply on the details of logging forms reported by the gNB-CU-CP, gNB-CU-UP and gNB-DU under measurement pollution conditions (R3-214429; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:SA5, RAN2

[R2-2109347](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109347.zip) MDT M6 calculation for split bearers in MR-DC (R3-214466; contact: Huawei) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

[R2-2109352](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109352.zip) LS on the Beam measurement reports for the MDT measurements (R3-214519; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:SA5, RAN2

[R2-2109388](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109388.zip) Reply LS on the details of logging forms reported by the gNB-CU-CP, gNB-CU-UP and gNB-DU under measurement pollution conditions (S5-213499; contact: Ericsson) SA5 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN3 Cc:RAN2

[R2-2109391](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109391.zip) Reply LS on Report Amount for M4, M5, M6, M7 measurements (S5-214523; contact: Nokia) SA5 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN3 Cc:RAN2

[R2-2110846](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110846.zip) On beam information in immediate MDT measurement reports (reply LS R3-214519) Ericsson discussion

[R2-2110884](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110884.zip) LS Reply On user plane masurements for successful handover report Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2111226](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111226.zip) Reply LS on the details of logging forms reported by the gNB-CU-CP, gNB-CU-UP and gNB-DU under measurement pollution conditions (S5-215493; contact: Ericsson) SA5 LS in Rel-17 e5GMDT To:RAN3 Cc:RAN2

### 8.13.2 SON

#### 8.13.2.1 Handover related SON aspects

Including outcome of [Post115-e][899][SON/MDT] Handover related SON aspects (Ericsson)

[R2-2109562](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109562.zip) Discussion on SHR enhancements vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2109563](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109563.zip) Indication on the availability of rlf-Report via failureInformation for DAPS HO failure vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110005](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110005.zip) Further Discussion on CHO and DAPS Aspects CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110041](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110041.zip) UP measurements of HO interruption time Apple discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110097](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110097.zip) Further consideration of SON of HO related aspects OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110104](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110104.zip) Further consideration on successful handover report OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110256](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110256.zip) Open issues on SHR NEC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110298](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110298.zip) SON Enhancements for CHO Lenovo, Motorola Mobility discussion Rel-17

[R2-2110299](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110299.zip) SON Enhancements for DAPS Handover Lenovo, Motorola Mobility discussion Rel-17

[R2-2110300](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110300.zip) SON Enhancements for SHR Lenovo, Motorola Mobility discussion Rel-17

[R2-2110529](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110529.zip) Remaining issues on SON Enhancement for CHO CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110530](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110530.zip) Remaining issues on SON Enhancement for DAPS CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110531](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110531.zip) Further Discussion on Successful Handover Report CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110635](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110635.zip) Discussion on handover related SON aspects Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110717](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110717.zip) Further clarification on SON MRO Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110735](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110735.zip) Remaining issues on HO related SON aspects ZTE Corporation, Sanechips discussion Rel-17

[R2-2110882](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110882.zip) Handover-related SON aspects Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110889](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110889.zip) [Post115-e][899][SON/MDT] Handover related SON aspects (Ericsson) Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110920](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110920.zip) HO related SON changes QUALCOMM Technologies INC. discussion Rel-17

[R2-2110936](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110936.zip) Discussion on CHO related RLF-Report LG Electronics discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110988](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110988.zip) SON Enhancements for CHO and DAPS HO Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110992](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110992.zip) SON Enhancements for Successful HO Report Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2111016](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111016.zip) Discussion on HO type indicator for CHO and DAPS SHARP Corporation discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2111024](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111024.zip) Discussion on contents of successful HO report SHARP Corporation discussion NR\_ENDC\_SON\_MDT\_enh-Core

#### 8.13.2.2 2-step RA related SON aspects

Including outcome of [Post115-e][898][SON/MDT] 2-step RA related SON aspects (CATT)

[R2-2110006](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110006.zip) Report of [Post115-e][898][SON/MDT] 2-step RA related SON aspects CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110007](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110007.zip) TS38.331 Draft CR for 2-step RA related SON aspects CATT draftCR Rel-17 38.331 16.6.0 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110008](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110008.zip) Discussion on Signalling Structure of 2-step RA Report CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110532](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110532.zip) Remaining issues on SON Enhancement for 2-step RA CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110636](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110636.zip) Discussion on 2 step RA related SON aspects Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110736](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110736.zip) 2step RA related enhancements ZTE Corporation, Sanechips discussion Rel-17

[R2-2110837](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110837.zip) 2-Step RA information for SON purposes Ericsson discussion

[R2-2110994](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110994.zip) SON Enhancements for 2SRA Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

#### 8.13.2.3 Other WID related SON features

Including outcome of [Post115-e][897][SON/MDT] 2 Modeling aspects related to information required by SN/SCG (Huawei)

[R2-2110009](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110009.zip) Further Analysis on UE RACH Report for SN CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110010](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110010.zip) Further Analysis on PSCell MHI Enhancement CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110301](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110301.zip) SON Enhancement for NR-U Lenovo, Motorola Mobility discussion Rel-17

[R2-2110637](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110637.zip) [Post115-e][897][SONMDT] Modeling aspects related to information required by SNSCG (Huawei) Huawei discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110638](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110638.zip) Discussion on other SON aspects Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110716](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110716.zip) Discussion on other SON aspects Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110719](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110719.zip) UE grouping impact on MRO Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110737](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110737.zip) On other WID related issues ZTE Corporation, Sanechips discussion Rel-17

[R2-2110854](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110854.zip) On Other WID related SON features Ericsson discussion

[R2-2110921](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110921.zip) NR-U Related Enhancements QUALCOMM Technologies INC. discussion Rel-17

[R2-2110995](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110995.zip) SON Enhancements: Others Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

### 8.13.3 MDT

#### 8.13.3.1 Immediate MDT enhancements

Including outcome of [Post115-e][895][SON/MDT] IMM MDT (ZTE)

[R2-2109564](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109564.zip) Discussions on RAN3 LS on immediate MDT vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110639](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110639.zip) Discussion on M6 calculation for split bearers in MR-DC (RAN3 LS [R2-2109347](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109347.zip)) Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110640](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110640.zip) Discussion on immediate MDT enhancements Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110718](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110718.zip) M5 Measurement for DC Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110738](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110738.zip) Report of [Post115-e][895][SON/MDT] IMM MDT ZTE Corporation, Sanechips report Rel-17

[R2-2110739](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110739.zip) Consideration on immediate MDT enhancements ZTE Corporation, Sanechips discussion Rel-17

[R2-2110848](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110848.zip) On Immediate MDT Enhancements Ericsson discussion

#### 8.13.3.2 Logged MDT enhancements

Including outcome of [Post115-e][896][SON/MDT] Logged MDT (Nokia)

[R2-2110011](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110011.zip) Discussion on Logged MDT Enhancement CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110042](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110042.zip) Remaining issues for logged MDT Apple discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110098](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110098.zip) Enhancements for logged MDT regarding RAT-specific coverage hole OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110533](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110533.zip) Further consideration on UL-DL coverage mismatch CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110641](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110641.zip) Discussion on logged MDT enhancements Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110714](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110714.zip) Report on [Post115-e][896][SON/MDT] Logged MDT (Nokia) Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2110715](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110715.zip) Logged MDT and other enhancements Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2107508

[R2-2110740](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110740.zip) CEF report enhancements ZTE Corporation, Sanechips discussion Rel-17

[R2-2110850](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110850.zip) On logged MDT related enhancements Ericsson discussion

[R2-2110923](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110923.zip) Logged measurement Enhancements QUALCOMM Technologies INC. discussion Rel-17

[R2-2110999](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110999.zip) SON Enhancements for SI Request Optimization Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2111168](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111168.zip) Discussion on Logged MDT issues Samsung Electronics Co., Ltd discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

### 8.13.4 L2 Measurements

[R2-2110242](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110242.zip) Introducion of PRB usage based on statistical MIMO layer CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core Revised

[R2-2110642](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110642.zip) Discussion on L2M Huawei, CMCC, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2108567

[R2-2110741](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110741.zip) L2 measurements enhancements ZTE Corporation, Sanechips discussion Rel-17

[R2-2110849](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110849.zip) On layer-2 measurements Ericsson discussion

[R2-2110959](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110959.zip) Introducion of PRB usage based on statistical MIMO layer CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core [R2-2110242](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110242.zip)

[R2-2111196](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111196.zip) Introduction of enhanced PRB Usage for MIMO China Unicom discussion Rel-17

[R2-2111202](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111202.zip) 38.314 CR to introduce the enhanced PRB Usage for MIMO China Unicom CR Rel-17 38.314 16.4.0 0018 - B NR\_ENDC\_SON\_MDT\_enh-Core

## 8.14 NR QoE

(NR\_QoE-Core; leading WG: RAN3; REL-17; WID: RP-211406)

Time budget: 0.5 TU

Tdoc Limitation: 3 tdocs

Email max expectation: 2 threads

Focus on adressing open issues

### 8.14.1 Organizational

LS in. Rapporteur input. Running CRs.

LS in

[R2-2109386](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109386.zip) Reply LS on QoE configuration and reporting related issues (S4-211291; contact: Huawei) SA4 LS in Rel-17 NR\_QoE-Core To:RAN2 Cc:RAN3, SA5

* Noted

[R2-2109348](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109348.zip) Reply LS on QoE configuration and reporting related issues (R3-214471; contact: CMCC) RAN3 LS in Rel-17 NR\_QoE-Core To:RAN2

* Noted

[R2-2109390](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109390.zip) Reply LS on QoE configuration and reporting related issues (S5-214520; contact: Huawei) SA5 LS in Rel-17 NR\_QoE-Core To:RAN2 Cc:SA4, RAN3

* Noted

[R2-2109351](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109351.zip) LS on RAN3 agreements for NR QoE (R3-214477; contact: China Unicom) RAN3 LS in Rel-17 NR\_QoE-Core To:RAN2, SA4, SA5

- Lenovo asks it R2 will discuss RV QoE, also Lenovo wonder why high priority SRB would be needed.

- Chair think we will discuss

- Ericsson think the SRB question is due to the need for immediate gNB action.

- Chair believe we will not use SRB1 as this is for AS internal control, to react to radio conditions in time.

- Oppo think RV QoE measurement are still just QoE measurements.

* Noted

[R2-2109384](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109384.zip) LS Reply on requirement for configuration changes of ongoing QMC sessions (S4-211248; contact: Huawei) SA4 LS in Rel-17 NR\_QoE To:RAN3 Cc:SA5, RAN2

* Noted

[R2-2109385](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109385.zip) LS Reply on QoE report handling at QoE pause (S4-211290; contact: Huawei) SA4 LS in Rel-17 NR\_QoE-Core To:RAN2, SA5 Cc:SA3

- SA4 has questions, we will reply

- Huawei think pause resume has low priority.

- Lenovo indicate that SA3 has discussed this but didn’t converge. Think that if we cannot decide option 1 or 2 in this meeting we might move this to R18-

* Noted

[R2-2109389](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109389.zip) Reply LS on QoE report handling at QoE pause (S5-214519; contact: Huawei) SA5 LS in Rel-17 NR\_QoE-Core To:RAN2, SA4 Cc:SA3

- SA5 doesn't want to discard

* Noted

[R2-2111225](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111225.zip) Reply LS on QoE Reference and maximum number of QoE configurations in RRC (S5-215213; contact: Huawei) SA5 LS in Rel-17 eQoE To:RAN2, RAN3 Cc:SA4

- Chair think we proposed 8.16, 32, 64. Ericsson think 32 had most number of votes. Lenovo

- Chair wonder if we can choose 32 then but think 8 would be ok.

- Apple think 8 is more than sufficient. Chair think this could be the baseline. Nokia think even lower number would be suitable, e.g. 4. Samsung think 16 would be future proof.Huawei point out that these are configured configurations.

* Noted

[R2-2109382](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109382.zip) Reply LS on the mapping between service types and slice at application (S4-211225; contact: Qualcomm) SA4 LS in Rel-17 NR\_QoE To:RAN3 Cc:CT1, SA4, RAN2, SA2

[R2-2109372](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109372.zip) Reply LS on the mapping between service types and slice at application (S2-2106537; contact: Qualcomm) SA2 LS in Rel-17 NR\_slice-Core To:RAN3 Cc:SA4, CT1, SA5, RAN2

[R2-2109383](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109383.zip) LS on TS 28.404/TS 28.405 Clarification (S4-211234; contact: Qualcomm) SA4 LS in Rel-17 NR\_QoE-Core To:SA5 Cc:RAN2

* 3 Noted

CRs

[R2-2109865](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109865.zip) Running RRC CR for QoE measurements Ericsson draftCR Rel-17 38.331 16.6.0 B NR\_QoE-Core

[R2-2111064](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111064.zip) Running CR of UE capability for NR QoE CMCC draftCR Rel-17 38.306 16.6.0 NR\_QoE

[R2-2111162](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111162.zip) 38.300 running CR for Introduction of QoE measurements in NR China Unicom, Huawei, HiSilicon draftCR Rel-17 38.300 16.7.0 B NR\_QoE-Core

### 8.14.2 QoE measurement collection NR standalone

Specify the support for QoE measurement collection in NR standalone mode. [RAN2, RAN3], including: configuration, activation, and deactivation procedures for both signalling-based and management-based QoE measurement collection and reporting, taking LTE QoE solutions as baseline, as defined in TR 38.890, Including determination of QoE measurement handling at RRC state transition/in RRC\_INACTIVE. including: support for multiple simultaneous QoE measurements at a UE, including: QoE measurement handling at RAN overload, including pause and resume of QoE measurement reporting.

Do not input to 8.14.2 but instead to 8.14.2.x

#### 8.14.2.1 Configuration architecture general aspects

* [AT116-e][042][eQOE] Configuration and reporting (Ericsson)

Scope: Items: MeasConfigAppLayerId handling e.g. provided to/from application?, Segmentation further details e.g. can it be mandatory, if not, indicate to application?,

Whether application need to inform AS session start stop,

RRC handling at Resume, Handover etc, delta config and fullconfig, can use R2-2108967 as baseline for discussion.

PH2: P7: Discuss whether RAN2 intends to fulfil the SA4 requirements related to mobility. Chair: LS out (on topics of this Agenda item) + Discuss in detail what are the mobility cases, what is the expected AS behaviour. Can limit to Uu part. Can discuss whethter we need further clarifications by LS,

Intended outcome: Report, RRC TP for agreeable parts. PH2: Report with agreements, Approved LS out

Deadline: Tuesday W2, PH2: EOM (offline)

[R2-2111536](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111536.zip) Feature summary for 8.14.2.1 Ericsson

DISCUSSION

- OPPO: ON P6 it is not useful when UE is connected. Only useful for resume, so it is useful to restrict to this case.

- QC: P7 think there is no requirement to fullfill continuity. P8: think that behaviour of legacy gNB need to clarified.

- Leonovo: P5 Why do we need to discuss this, we were asked to remove the limit. P6 if reports are event driven AS may receive multiple reports at same time.

- Apple P4: need to inform SA4 the consequences of using RRC segmentation. P5: think RRC segmentation is already supported for DL so no need. P7 disconnect between R3 and SA4 but opposed to sending start stop indications. P6 shouold be up to UE impl

- LG P4: think the max number of segments is 16 so there is a max size also with segmentation. Nokia agrees.

- Intel P8 P9 Think the basics of RRC is sufficient, maybe need to continue detailed discussion to address confusion. Apple agrees. Huawei agrees and think P8 is how it works today with delta. P9 is useful.

- ZTE P6 see no benefit. Think RRC segmentation is a burden. P2 thinl other WG should decide

- Huawei P7 it is clear that mobility requirements shall still be fullfilled.

RRC segmentations should be optional at least for the network, so if configurations need segmentation this is an issue

- Samsung P7 Think there is diffierent understandings in R2, would like to ask SA4. P10 suport but there seems to be on TS impact.

- Nokia P1-4 are agreeable. P6 can be left to UE impl. P10 should not have an impact. P7 agrees that area handling is not over Uu, so no impact to RAN2. P9 should keep RRC basics for full config, may not need enhancements for QoE.

- Ericsson think P6 is not currently supported. Reply LS with new size limit. On Handover, many think measurements are released, but they are not.

* Forward the measConfigAppLayerId from the AS layer to the application layer together with the QoE configuration.
* Forward the measConfigAppLayerId from the application layer to the AS layer together with the QoE report.
* Reply to SA4 that the size limitation of the QoE report has chanegd. RAN2 has agreed to optionally support RRC segmentation for transmission of QoE reports, and we indicate the new limits
* Size limit of QoE configuration = size of one PDCP SDU.
* Inform CT1 and SA4 of these agreements and ask them to specify the measConfigAppLayerId (e.g. in AT command). Can also discuss whether we need to have an action related to size limitation (whether to inform application of the size that is supported).
* FFS if to Allow multiple QoE reports in the same RRC message, but leave it to UE implementation when / whether to use this (does not involve additional buffering).

Continue the offline on mobility:

P7: Discuss whether RAN2 intends to fulfil the SA4 requirements related to mobility. Chair: Discuss in detail what are the mobility cases, what is the expected AS behaviour. Can limit to Uu part.

Can discuss whethter we need clarifications by LS.

Long email discussion

P8/P9: Continue discussion, assuming no or minimal change to current AS behaviour

P10: Is there any other aspect of release that need to be clarified?

General

[R2-2109565](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109565.zip) QoE configuration, reporting and mobility Qualcomm Incorporated discussion NR\_QoE-Core

[R2-2109866](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109866.zip) Configuration and reporting of QoE measurements Ericsson discussion Rel-17 NR\_QoE-Core

[R2-2109662](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109662.zip) QoE measurement configuration and general aspects Intel Corporation discussion Rel-17 NR\_QoE-Core

[R2-2109832](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109832.zip) Further discussion on transmission of QoE reports Lenovo, Motorola Mobility discussion Rel-17 NR\_QoE-Core

[R2-2109984](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109984.zip) Discussion on QoE configuration vivo discussion Rel-17 NR\_QoE-Core

[R2-2110099](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110099.zip) Discussion on QoE measurement collection in NR OPPO discussion Rel-17 NR\_QoE-Core

[R2-2110605](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110605.zip) Discussion on QoE measurement configuration and reporting Huawei, HiSilicon discussion Rel-17 NR\_QoE-Core

[R2-2110720](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110720.zip) QoE configuration handling Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_QoE-Core R2-2107513

[R2-2110991](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110991.zip) Discussion on NR QoE configuration ZTE Corporation, Sanechips discussion Rel-17

[R2-2110993](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110993.zip) Discussion on NR QoE configuration CATT discussion NR\_QoE-Core

[R2-2111062](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111062.zip) Remaining issues on configuration and reporting CMCC discussion Rel-17

[R2-2111132](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111132.zip) QoE configuration in general aspects Samsung discussion Rel-17

[R2-2111188](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111188.zip) Discussion on NR QoE measurement and configurations China Unicom discussion NR\_QoE-Core

Mobility

[R2-2109867](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109867.zip) QoE measurements at handover, resume and re-establishment Ericsson, China Unicom discussion Rel-17 NR\_QoE-Core

P1-P8

- P7 ZTE think this is discussed in RAN3.

- P1-P3 QC think that we agreed that we agreed to indicate explicitly which ones to be resumed

- P2 Intel think that releasing the AS like this is ok, it works with fullconfig.

- Huawei agrees with the spirit of most proposals.

* Noted

[R2-2110073](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110073.zip) Supporting mobility for NR QoE Apple discussion Rel-17 NR\_QoE-Core

[R2-2110606](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110606.zip) QoE handling during UE mobility Huawei, HiSilicon discussion Rel-17 NR\_QoE-Core

RRC segmentation

[R2-2111133](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111133.zip) RRC segmentation for QoE configuration and report Samsung discussion Rel-17

- Huawei think it should be optional, as today.

- Apple think the gNB may need to be aware. And other groups,

- Ericsson think the gNB is aware.

- Lenovo think for configuration it is already supported, think it is needed.

* Support RRC segmentation for the Reporting
* FFS whether it is optional or cond. mandatory for UE that support QoE (can continue discuss in this meeting)
* Will inform other groups (R3, SA5, SA4, CT1?)

[R2-2110074](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110074.zip) RRC segmentation for NR QoE Apple discussion Rel-17 NR\_QoE-Core

Reply LS

[R2-2110609](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110609.zip) Draft reply LS on QoE configuration and reporting related issues Huawei, HiSilicon LS out Rel-17 NR\_QoE-Core To:SA4, SA5 Cc:RAN3

#### 8.14.2.2 Start and Stop

Activation Deactivation Pause Resume. Note that the remaining discussion on Pause Resume may be deprioritized awaiting reply LS.

[R2-2110075](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110075.zip) Pause/Resume functionality Apple discussion Rel-17 NR\_QoE-Core

- ZTE think we can postpone this pause resume to R18.

- LG support this.

- vivo think there may be different requirements for different configurations.

- Ericsson think we can support selective pause resume ..

- Nokia think we have pause resume anyway in RRC inactive.

- Samsung think for selective pause there will be more work , e.g. in other groups.

- Chair think we chose the simplest alternative, and if that is not possible we postpone to next release.

- The majority seems to support selective pause.

- QC wonder if we then need to discuss how to select. Chair think we can say we don't discuss in R2 but maybe other groups.

- OPPO want to ask Ran3.

* We go with selective pause resume (with the understanding that we will not work further on the information the gNB may use for election).

[R2-2109833](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109833.zip) Further discussion on QoE report handling at QoE pause Lenovo, Motorola Mobility discussion Rel-17 NR\_QoE-Core

* Noted

We will reply to SA4 LS

- What is the time for suspension?

- QC think the pause is for a very long time.

- Chair think Lenovo had good explanations why the pause would typically be in the order of minutes.

Chair Continue offline

* [AT116-e][043][eQOE] QoE report handling at QoE pause (Huawei)

Scope: Reply to SA4s questions

Intended outcome: Report, TP for LS out.

Deadline: Tuesday W2 (CB online only if not possible to agree offline)

[R2-2111513](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111513.zip) Further reply on QoE report handling at QoE pause Huawei

- Chair wonder if this reply indicate that we don’t need pause resume. Huawei think the discussion indeed goes in this direction. Nokia think it is strange to indicate that our own mechanism is not useful. Lenovo agrees.

- China Unicom think R3 has agreed pause resume indications, think it is useful.

- ZTE think that as SA4 SA5 has different opinions on how pause resume works this may be postponed to next release.

- Ericsson think we can remove the last sentence in the LS.

- Lenovo anyway think SA4 will postpone if they get a reply.

* Postpone this reply LS. Discuss at RP whether to have the pause resume in Rel-17.

[R2-2109868](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109868.zip) Pause and resume of QoE measurements Ericsson discussion Rel-17 NR\_QoE-Core

[R2-2109567](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109567.zip) QoE pause and resume handling Qualcomm Incorporated discussion NR\_QoE-Core

[R2-2109574](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109574.zip) Draft reply LS on QoE report handling at QoE pause Qualcomm Incorporated LS out NR\_QoE-Core To:SA4 Cc:SA5, RAN3

[R2-2109985](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109985.zip) Discussion on start and stop of QoE measurement vivo discussion Rel-17 NR\_QoE-Core

[R2-2110101](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110101.zip) Discussion on QoE measurement pausing and resuming OPPO discussion Rel-17 NR\_QoE-Core

[R2-2110281](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110281.zip) Discussion on the partial QoE reporting and buffering at RAN overload ITRI discussion NR\_QoE-Core R2-2107852

[R2-2110382](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110382.zip) QoE pause and resume procedure LG Electronics Inc. discussion Rel-17

[R2-2110608](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110608.zip) Discussion on SA4/SA5 reply for QoE pause Huawei, HiSilicon discussion Rel-17 NR\_QoE-Core

[R2-2110721](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110721.zip) QoE stop and pause Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_QoE-Core R2-2107515

[R2-2110722](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110722.zip) RAN control on QoE reporting Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_QoE-Core R2-2107514

[R2-2110989](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110989.zip) Discussion on NR QoE start and stop ZTE Corporation, Sanechips discussion Rel-17

[R2-2110990](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110990.zip) Discussion on buffer for NR QoE start and stop ZTE Corporation, Sanechips discussion Rel-17

[R2-2110996](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110996.zip) Discussion on QoE collection start and stop CATT discussion NR\_QoE-Core

[R2-2111131](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111131.zip) Pause and resume in QoE Samsung discussion Rel-17

[R2-2110100](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110100.zip) [Draft] LS reply on further questions regarding QoE reporting handling at QoE pause OPPO LS out Rel-17 NR\_QoE-Core To:SA4

### 8.14.3 Other

Other WI objectives. UE capabilites.

RAN visible QoE

- Chair wonder if RAN2 is to define in-detail every piece of information that is reported, or shall this be defined somewhere else? What will be the R2 responsibility in this?

* [AT116-e][044][eQOE] RAN visible QoE (Qualcomm)

Scope: Review RAN3 LS on RVQoE, proposals in [R2-2111191](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111191.zip), collect comments identify work and expectations in RAN2 (and issues if any), Can also collect comments and attempt a first convergence on some technical proposals, e.g. as in [R2-2109568](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109568.zip) [R2-2110607](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110607.zip) and other documents (rapporteur can select detail questions e,g, top down).

Intended outcome: Report, TP for LS out.

Deadline: Tuesday W2,

[R2-2111521](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111521.zip) RAN visible QoE Qualcomm

DISCUSSION

P1 P2

- Nokia are ok for P1. For P2 would like to stick to last sentence, and think that that 1st and last bullets of P2.

- Chair wonder when we can expect input, is SA4 really involved? CATT think we need to check with R3.

- Chair wonder about the RRC communication with application. Huawei think from RRC there is no issue, just forward to upper layer.

- Chair wonder also why XML wouldn’t be used? Huawei think there are privacy reasons.

- Oppo think P1 is OK, and think the first bullet should be agreed.

- Nokia object that It is feasible to configure RVQOE using explicit RRC IEs, we can use XML format.

* RAN2 assumes that RAN2 is responsible to define the procedure to support RVQOE configuration and reporting, and leave the definition of RAN QoE metrics and what should be included in RVQOE configuration and report to other WGs, e.g. RAN3, SA4.
* RAN2 confirms the following is feasible from RAN2 point of view.

It is feasible to configure RVQOE using explicit RRC IEs

Multiple simultaneous QoE measurements can be supported for RVQOE. Each RVQOE measurement configuration is identified by the MeasConfigAppLayerId (or change to another generic term) corresponding to the regular QoE configuration.

UE RRC layer forwards the received RVQOE configuration to the upper (application) layer, indicating the service type.

RAN configures the required RVQOE metrics in the RVQOE configuration for UE to report.

[R2-2110607](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110607.zip) RAN visible QoE Huawei, HiSilicon discussion Rel-17 NR\_QoE-Core

[R2-2109568](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109568.zip) Support of RAN visible QoE and per-slice QoE Qualcomm Incorporated discussion NR\_QoE-Core

[R2-2111191](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111191.zip) Discussion on RAN visible of QoE China Unicom discussion NR\_QoE-Core

General

[R2-2109986](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109986.zip) Discussion on other WI objectives vivo discussion Rel-17 NR\_QoE-Core

UE capability

[R2-2111063](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111063.zip) Discussion on UE capability for NR QoE CMCC discussion Rel-17

## 8.15 NR Sidelink enhancements

(NR\_SL\_enh-Core; leading WG: RAN1; REL-17; WID: RP-202846)

Time budget: 1.5 TU

Tdoc Limitation: 3 tdocs

Email max expectation: 6 threads

### 8.15.1 Organizational

Including incoming LSs, rapporteur inputs, [POST115-e][712], [POST115-e][713], etc.

[R2-2109323](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109323.zip) Reply LS on SL DRX design (R1-2108580; contact: ZTE) RAN1 LS in Rel-17 NR\_SL\_enh-Core To:RAN2 Cc:RAN4

[R2-2109324](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109324.zip) Reply LS on time gap information in SCI (R1-2108622; contact: OPPO) RAN1 LS in Rel-17 NR\_SL\_enh-Core To:RAN2

[R2-2111220](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111220.zip) Reply LS on SL resource selection with DRX (R1-2110662; contact: InterDigital) RAN1 LS in Rel-17 NR\_SL\_enh-Core To:RAN2

[R2-2109606](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109606.zip) RRC running CR for NR Sidelink enhancements Huawei, HiSilicon draftCR Rel-17 38.331 16.6.0 F NR\_SL\_enh-Core Late

[R2-2109607](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109607.zip) Summary of [POST115-e][713][V2X/SL] 38.331 running CR Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core Late

[R2-2110157](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110157.zip) Summary of [POST115-e][712][SL] Discussion on stage 3 open issues in 38.321 running CR LG Electronics France discussion Rel-17 NR\_SL\_enh-Core

[R2-2110158](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110158.zip) Running CR of TS 38.321 for Sidelink enhancement LG Electronics France draftCR Rel-17 38.321 16.6.0 B NR\_SL\_enh-Core

[R2-2111177](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111177.zip) Draft Reply LS on PC5 DRX for ProSe LG Electronics France LS out NR\_SL\_enh-Core To:SA2 Cc:CT1, RAN1 Late

### 8.15.2 SL DRX

Including [POST115-e][714], [POST115-e][715][V2X/SL], [POST115-e][716], etc.

[R2-2109396](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109396.zip) Summary of [POST115-e][714] OPPO report Rel-17 NR\_SL\_enh-Core

[R2-2109397](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109397.zip) SL-DRX for ProSe OPPO, ZTE, Apple, MediaTek discussion Rel-17 NR\_SL\_enh-Core Late

[R2-2109415](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109415.zip) Discussion on DRX left issues OPPO discussion Rel-17 NR\_SL\_enh-Core

[R2-2109476](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109476.zip) SL DRX Configuration Reporting Mechanism for GC/BC CATT discussion Rel-17 NR\_SL\_enh-Core

[R2-2109477](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109477.zip) Left issues for Sidelink Unicast DRX CATT discussion Rel-17 NR\_SL\_enh-Core

[R2-2109478](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109478.zip) [POST115-e][716][V2X/SL] Identified FFS and open issues (CATT) CATT discussion Rel-17 NR\_SL\_enh-Core

[R2-2109608](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109608.zip) Considerations on sidelink DRX for groupcast and broadcast Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core

[R2-2109609](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109609.zip) Remaining issues of the sidelink DRX for unicast Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core Revised

[R2-2109610](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109610.zip) Remaining issues of SL communication impact on Uu DRX Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core

[R2-2109643](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109643.zip) Discussion on SL DRX Command SHARP Corporation discussion NR\_SL\_enh-Core

[R2-2109720](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109720.zip) Further discussion on identified FFS/ open issues of unicast sidelink DRX overall flow NEC Corporation discussion

[R2-2109722](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109722.zip) Discussion on DRX suspend/resume mechanism NEC Corporation discussion

[R2-2109724](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109724.zip) DRX Active time, Sensing and Configuration aspects Lenovo, Motorola Mobility discussion NR\_SL\_enh-Core

[R2-2109800](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109800.zip) Discussion on remaining issues for SL DRX ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

[R2-2109801](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109801.zip) Further consideration on SL DRX configuration ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

[R2-2109812](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109812.zip) Further issues on SL DRX Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_enh-Core

[R2-2109813](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109813.zip) Discussion on alignment of mode 1 resource allocation and active time of SL Rx UE in SL DRX Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_enh-Core R2-2108469

[R2-2109847](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109847.zip) SL-DRX configuration for Unicast, Broadcast and Groupcast Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2109907](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109907.zip) Remaining aspects of SL DRX Ericsson discussion Rel-17 NR\_SL\_enh-Core

[R2-2109908](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109908.zip) Impact analysis between SL DRX and SL relay Ericsson discussion Rel-17 NR\_SL\_enh-Core

[R2-2109936](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109936.zip) Resource Allocation Considering DRX InterDigital discussion Rel-17 NR\_SL\_enh-Core

[R2-2109937](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109937.zip) Remaining aspects on SL DRX Timers InterDigital discussion Rel-17 NR\_SL\_enh-Core

[R2-2109938](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109938.zip) Confirmation of WA on HARQ RTT Based on SCI InterDigital, Apple, Ericsson, Nokia, MediaTek, Fujitsu, Samsung, Sharp, vivo, Huawei, HiSilicon, Qualcomm, Convida, ZTE discussion Rel-17 NR\_SL\_enh-Core

[R2-2109956](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109956.zip) Leftover aspects on SL DRX configuration Intel Corporation discussion Rel-17 NR\_SL\_enh-Core

[R2-2109957](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109957.zip) On SL DRX alignment Intel Corporation discussion Rel-17 NR\_SL\_enh-Core

[R2-2110061](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110061.zip) Discussion on remaining issues on SL Impact of Uu-DRX Apple discussion Rel-17 NR\_SL\_enh-Core

[R2-2110062](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110062.zip) Discussion on Remaining issues of SL DRX Apple discussion Rel-17 NR\_SL\_enh-Core

[R2-2110106](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110106.zip) Discussion on SL-DRX for ProSe vivo, Ericsson, InterDigital Inc, Lenovo, Motorola Mobility, CATT, ASUSTek discussion

[R2-2110119](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110119.zip) Remaining issues on DRX Timers for SL Unicast Spreadtrum Communications discussion Rel-17

[R2-2110155](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110155.zip) Discussion on remaining issues and further consideration on SL DRX LG Electronics France discussion Rel-17 NR\_SL\_enh-Core

[R2-2110162](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110162.zip) Open issues on TX centric SL DRX LG Electronics France discussion Rel-17 5G\_V2X\_NRSL-Core

[R2-2110223](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110223.zip) Discussion on Uu impact Xiaomi discussion

[R2-2110224](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110224.zip) Discussion on Sidelink DRX for unicast Xiaomi discussion

[R2-2110225](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110225.zip) Discussion on Sidelink DRX for broadcast and groupcast Xiaomi discussion

[R2-2110273](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110273.zip) Remaining issues of SL DRX MediaTek Inc. discussion Rel-17 NR\_SL\_enh-Core

R2-2110316 DRX Active time, Sensing and Configuration aspects Lenovo, Motorola Mobility discussion Rel-17 Withdrawn

[R2-2110650](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110650.zip) Remaining issues for sidelink DRX vivo discussion Rel-17

[R2-2110680](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110680.zip) Summary of [Post115-e][715][SL] Determination of DRX timer length and start time(vivo) vivo discussion

[R2-2110747](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110747.zip) SL data transmission considering SL DRX active time Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh-Core

[R2-2110937](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110937.zip) Further consideration on SL DRX and Uu DRX alignments Samsung Research America discussion

[R2-2110938](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110938.zip) Open issues on SL DRX operation in groupcast Samsung Research America discussion

[R2-2111008](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111008.zip) Discussion on remaining issues on Sidelink DRX ASUSTeK discussion Rel-17 NR\_SL\_enh-Core

[R2-2111065](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111065.zip) Remaining issues for SL DRX timers Lenovo, Motorola Mobility discussion Rel-17 NR\_SL\_enh-Core

[R2-2111119](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111119.zip) Discussion on Uu DRX and SL DRX Alignment Qualcomm Finland RFFE Oy discussion

[R2-2111120](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111120.zip) Discussion on Blind Retransmissions with DRX in Mode 1 Qualcomm Finland RFFE Oy discussion

[R2-2111121](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111121.zip) Discussion on RLF and PC5 RRC Connection with SL DRX Qualcomm Finland RFFE Oy discussion

[R2-2111122](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111122.zip) Discussion on pool separation for SL DRX LG Electronics France and ZTE discussion NR\_SL\_enh-Core

[R2-2111204](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111204.zip) Remaining issues of the sidelink DRX for unicast Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core [R2-2109609](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109609.zip)

### 8.15.3 Resource allocation enhancements RAN2 scope

Including RAN2 discussion scope on random selection, partial sensing and inter-UE coordination. This agenda item may utilize a summary document (TBD).

[R2-2109416](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109416.zip) Discussion on resource allocation enhancement OPPO discussion Rel-17 NR\_SL\_enh-Core

[R2-2109479](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109479.zip) Consideration on Resource Allocation Enhancements CATT discussion Rel-17 NR\_SL\_enh-Core

[R2-2109719](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109719.zip) Discussion on RAN2 impacts for supporting inter-UE coordination Scheme 1 with preferred resource set NEC Corporation discussion

[R2-2109958](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109958.zip) On resource allocation and inter-UE coordination aspects Intel Corporation discussion Rel-17 NR\_SL\_enh-Core

[R2-2110063](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110063.zip) Discussion on resource allocation enhancements Apple discussion Rel-17 NR\_SL\_enh-Core

[R2-2110120](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110120.zip) Discussion on resource allocation enhancement for NR sidelink Spreadtrum Communications discussion Rel-17

[R2-2110156](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110156.zip) Power efficient resource allocation and Inter-UE coordination LG Electronics France discussion Rel-17 NR\_SL\_enh-Core

[R2-2110317](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110317.zip) Discussion on sidelink resource allocation enhancements Lenovo, Motorola Mobility discussion Rel-17

[R2-2110396](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110396.zip) Inter-UE Coordination for Sidelink Mode 2 Resource Allocation Fraunhofer IIS, Fraunhofer HHI discussion Rel-17 R2-2107182

[R2-2110419](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110419.zip) Power Reduction for Sidelink Mode 2 Resource Allocation Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2110651](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110651.zip) Discussion on inter-UE coordination for sidelink mode-2 vivo discussion Rel-17

[R2-2110691](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110691.zip) General principles for resource allocation enhancements for SL mode 2 Ericsson discussion Rel-17 NR\_SL\_enh-Core

[R2-2110828](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110828.zip) Discussion on inter-UE coordination ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

[R2-2110940](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110940.zip) Resource pool configuration and selection of resource selection mechanism Samsung Research America discussion

## 8.16 NR Non-Public Network enhancements

(WI NG\_RAN\_PRN\_enh-Core; leading WG: RAN3; REL-17; WID: RP-202363)

Time budget: 0.5 TU

Tdoc Limitation: 3 tdocs

Email max expectation: 2-3 threads

### 8.16.1 Organizational

Rapporteur input, incoming LS etc. Running CRs.

LS in

[R2-2109306](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109306.zip) Reply LS on limited service availability of an SNPN (C1-215046; contact: Nokia) CT1 LS in Rel-17 eNPN To:RAN2 Cc:RAN3, SA2

* Noted

[R2-2109814](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109814.zip) Reply LS on limited service availability of an SNPN (C1-216096; contact: CMCC) CT1 LS in Rel-17 eNPN To:RAN2 Cc:SA2, SA1

- LG think we can discuss R16 UE behavior. Nokia think R16 behavior is clear. QC agrees. CMCC think last meeting we also discussed R15 R16 behavior.

* Noted

[R2-2111241](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111241.zip) LS reply on limited service availability of an SNPN (S2-2108091; contact: vivo) SA2 LS in Rel-17 eNPN, NG\_RAN\_PRN\_enh-Core To:RAN2 Cc:CT1

* Noted

[R2-2109341](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109341.zip) Response LS on PWS Support over SNPN (R3-214402; contact: Nokia) RAN3 LS in Rel-17 NPN\_PWS To:SA, RAN2 Cc:SA1, SA2, SA3, CT, CT1, RAN

- RAN3 has attached a TP for Stage-2

- has already been reflected in the running CR

* Noted

[R2-2109375](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109375.zip) Reply to LS on Group IDs for Network selection (GINs) (S2-2106708; contact: Ericsson) SA2 LS in Rel-17 NG\_RAN\_PRN\_enh-Core To:RAN2, CT4 Cc:CT1

* Noted

[R2-2109371](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109371.zip) Reply LS on support of PWS over SNPN (S1-213120; contact: Huawei) SA1 LS in Rel-17 NG\_RAN\_PRN\_enh-Core To:CT1 Cc:SA2, SA3, RAN2, RAN3, SA, CT, RAN

* Noted

[R2-2109380](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109380.zip) Reply to LS on support of PWS over SNPN (S3-213609; contact: Nokia) SA3 LS in Rel-17 FS\_eNPN To:SA1 Cc:SA2, CT1, RAN2, RAN3, SA, CT, RAN

* Noted

Work Plan

[R2-2110366](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110366.zip) RAN2 Work Plan for Enhancement for Private Network Support for NG-RAN Nokia, China Telecom (Rapporteurs) Work Plan Rel-17 NG\_RAN\_PRN\_enh-Core

* Noted

CRs

Running CRs endorsed after R2 115e: R2-2107957 38.300 (Nokia), R2-2108874 38.331 (Nokia), R2-2108980 38.304 (Qualcomm).

[R2-2109692](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109692.zip) Draft CR for Enhancements for Private Networks Qualcomm Incorporated draftCR Rel-16 38.304 16.6.0 B NG\_RAN\_PRN\_enh-Core

[R2-2110364](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110364.zip) Draft Stage 2 CR: Non-Public Network enhancements Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 16.7.0 NG\_RAN\_PRN\_enh-Core R2-2107957

[R2-2110365](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110365.zip) Draft RRC CR: Non-Public Network enhancements Nokia, Nokia Shanghai Bell draftCR Rel-17 38.331 16.6.0 NG\_RAN\_PRN\_enh-Core R2-2108874

POST discussions for CR updates. Will consider potential updates to 38.306 for next meeting.

### 8.16.2 Support SNPN with subscription or credentials by a separate entity

Including the broadcasting of information to enable SNPN selection for UEs with subscription/credentials owned by an entity separate from the SNPN and Including the associated cell selection/reselection and connected mode mobility support (with RAN3). Including parts that are common with onboarding.

[R2-2110367](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110367.zip) SIB issues to support Credential Holders and onboarding Nokia, Nokia Shanghai Bell discussion Rel-17 NG\_RAN\_PRN\_enh-Core

DISCUSSION

P1.1 / 1.2

- Samsung think we could have different lists. Chair wonder the reason we would have different lists.

- LG think that NAS will resolve this, and SA2 reply contains no indication that we would be required to have two lists.

P2.2 / 2.3

- P2.3 Huawei prefer the other way around. SNPN->GIN

- LG support both these proposals.

- SNPN -> GIN or GIN -> SNPN

* There is a common list of GINs for both onboarding and SNPN access using external CHs.
* A GIN is encoded as an SNPN ID (i.e., as a PLMN ID and a NID).
* Optimize the broadcast of GINs by enabling to broadcast multiple NIDs for a single PLMN ID.
* The new SIB for GIN advertisement also includes the explicit assignment between GINs and SNPNs.
* The explicit assignments between GINs and SNPNs follows the approach that for each SNPNs there is a vector that describes which GINs are supported.

Other detailed signalling optimizations can be discussed in the CR offline. Nokia prefer Post meeting discussion

[R2-2110902](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110902.zip) SNPN access using external credentials Ericsson discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109411](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109411.zip) Support SNPN with subscription or credentials by a separate entity OPPO discussion NG\_RAN\_PRN\_enh-Core

[R2-2109559](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109559.zip) Further Consideration on Subscription or Credentials by CH CATT discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109685](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109685.zip) Consideration on the Separate Entity Supporting ZTE Corporation, Sanechips discussion Rel-17 NG\_RAN\_PRN\_enh-Core R2-2108046

[R2-2109805](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109805.zip) On supporting external credential access in SNPN Samsung R&D Institute India discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109987](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109987.zip) Remaining issue on supporting SNPN by a separate entity vivo discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2110978](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110978.zip) Left issues on supporting External Credentials and UE onboarding Huawei, HiSilicon discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2110979](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110979.zip) Discussion on GINs for SNPN Huawei, HiSilicon, China Telecom discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2111047](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111047.zip) Left Issues on Supporting SNPN with Credentials by a Separate Entity CMCC discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2111143](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111143.zip) GIn signaling LG Electronics discussion Rel-17

### 8.16.3 Support UE onboarding and provisioning for NPN

Including the UE onboarding relevant parameter broadcast from SIB and The associated cell selection/reselection, cell access control and the connected mode mobility support

[R2-2111144](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111144.zip) Open issues for UE Onboarding LG Electronics discussion Rel-17

DISCUSSION

P1/P2

- QC Ericsson Intel LG Samsung support

- Huawei think that then toggling the onboarding bit may not affect the UEs. Chair think it will be left for UE impl, but a UE that seeks cells for a certain purpose can do that.

- Nokia think we cannot rely on UE impl. CATT agrees think it should be specified. Oppo has the same view.

- QC think the selection in a bad ue will just try different cells, but the indication will be forwarded to NAS and NAS will not access the cell for onboarding if this is not supported.

P4

- will restrict the flexibility. Can discuss this in the running CR discussion.

* Cell selection (in 38304) is not affected by “on-boarding support” indicator. Suitability criteria of a SNPN cell is not affected by “on-boarding support” indicator. Assumption that NAS will anyway allow access for onboarding only if the cell/SNPN supports onboarding
* confirm that no new cause value in RRC Setup for on-boarding is introduced

[R2-2109412](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109412.zip) Support UE onboarding and provisioning for NPN OPPO discussion NG\_RAN\_PRN\_enh-Core

[R2-2109560](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109560.zip) Open issues on UE Onboarding and Provisioning for NPN CATT discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109615](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109615.zip) GINs for network selections Intel Corporation discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109686](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109686.zip) Consideration on the Onboarding and Provisioning for NPN ZTE Corporation, Sanechips discussion Rel-17 NG\_RAN\_PRN\_enh-Core R2-2108047

[R2-2109697](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109697.zip) Remaining issues of UE onboarding Qualcomm Incorporated discussion

[R2-2109808](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109808.zip) On supporting onboarding and provisioning for SNPN Samsung R&D Institute India discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109988](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109988.zip) Remaining issue on support UE onboarding for NPN vivo discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2110264](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110264.zip) Remaining Issues on supporting UE on-boarding and remote provisioning CMCC discussion Rel-17 NG\_RAN\_PRN\_enh

[R2-2110368](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110368.zip) Cell selection for onboarding Nokia, Nokia Shanghai Bell discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2110903](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110903.zip) UE onboarding Ericsson discussion Rel-17 NG\_RAN\_PRN\_enh-Core

### 8.16.4 Other

Including support of IMS voice and emergency services for SNPN (Broadcasting of relevant parameters). UE capabilities

[R2-2109704](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109704.zip) Support of emergency services and PWS for SNPN Qualcomm Incorporated discussion

DISCUSSION

- LG support all but would like to reword 2. AS would just forward to NAS for each SNPN whether it support emergency service or not.

P4

- Ericsson thikn we don’t need to mention PWS

P5

- OPPO think that the indication from SA1 was that we should have no prioritization in SNPN selection wrt PWS.

- Nokia think this is good. Ericsson also agrees, and think no additional indication for PWS support is needed. Huawei agrees as well.

* The new IE for the support for emergency services will be per SNPN and broadcast in SIB1.
* AS will indicate to NAS, for each SNPNs whether it support emergency services or not for a cell.
* An SNPN cell is considered an “acceptable cell” if it supports emergency services.
* There is no prioritization between cells with or without PWS support for the selection of “acceptable cells”.

Anything else

- LG wonder if R16 UEs are allowed to implement the emergency service support (only).

- Nokia think this is explicitly not allowed for R16. Ericsson agrees. CATT and CMCC agrees.

- Chair wonder if there is a desire to change R16 TS to allow early impl. CMCC think early Impl is not needed.

- Oppo think we should postpone any discussion on early impl. ZTE agrees.

Chair: It seems this topic is complete

[R2-2109413](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109413.zip) Support of IMS voice and emergency services for SNPN OPPO discussion NG\_RAN\_PRN\_enh-Core

[R2-2109561](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109561.zip) Open issues on Support of IMS Emergency for SNPN CATT discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109687](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109687.zip) Consideration on the emergency services for SNPN ZTE Corporation, Sanechips discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109764](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109764.zip) Details of Support of IMS Voice and Emergency Services for SNPN China Telecom, Huawei, HiSilicon discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109810](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109810.zip) On supporting Emergency services in SNPN Samsung R&D Institute India discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2109989](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109989.zip) Support of emergency service for SNPN vivo discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2110261](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110261.zip) Support of emergency services for SNPN CMCC discussion Rel-17 NG\_RAN\_PRN\_enh

[R2-2110369](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110369.zip) Considerations for IMS emergency support indicator Nokia, Nokia Shanghai Bell discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2110904](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110904.zip) Support of emergency services and PWS for SNPNs Ericsson discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2110980](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110980.zip) Support of IMS voice and emergency services for SNPN Huawei, HiSilicon discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2111145](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111145.zip) Emergency service on SNPN LG Electronics discussion Rel-17

## 8.17 NR feMIMO

(NR\_feMIMO-Core; leading WG: RAN1; REL-17; WID: RP-212535)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

Email max expectation: 2 threads

### 8.17.1 Organizational

Rapporteur input, incoming LS etc.

* [AT116-e][016][feMIMO] MAC CE impacts (Samsung)

Scope: Based on [R2-2110962](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110962.zip), [R2-2110035](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110035.zip), RAN LS’s and RAN1 progress. Do an initial review of impacts to MAC (MAC CEs) and related R2 work, collect initial comments, assess maturity and if possible Find Potential Agreements, identify points for online discussion, can also identify open issues.

Intended outcome: Report

Deadline: For online W1 Thursday, CLOSED

[R2-2111284](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111284.zip) Summary of [AT116-e][016][feMIMO] MAC CE impacts Samsung

DISCUSSION online W1

- Nokia think we need to settle principles first, and cannot decide on details yet. Can try and then see if it works.

- Huawei think that for P2, this question was not even asked, cannot decide it now. When we look at details we might need to change.

- Ericsson agree that P2 cannot be agreed now. Not sure it makes sense to mix power control and spatial relation. Vivo agrees this should be considered

- QC think the proposals are too generic, we can decide new MAC CE or extend when we have more detailed design.

- vivo think for P4, that RAN2 should make decision.

- Oppo think there are lots of MAC CEs. We should reuse old ones if possible.

- Xiaomi think that except for P2 the proposals are agreeable,

- Intel think that p2 is needed to discuss P3. Samsung agrees.

- Oppo think we should first settle RRC parameters

P1

- Oppo think for this one we can reuse.

- Samsung think that reusing the old one will not be clean, it is not optimized for mTRP.

- QC think that anyway need to keep the restriction in the legacy, to only update for one PUCCH resource in a PUCCH group. Ericsson agree w QC, Huawei too.

P2

- Huawei: Need to consider RRC as well

- P2 P3: Ericsson think we cannot decide anything at this point.

- QC support this proposal

P4

- Huawei wonder why we would use both new and old MAC CE? QC agrees. ZTE and Nokia agrees

Chair: This is just an initial discussion in RAN2, mainly to get some focus on the various issues we need to address. It is expected this is just a start.

* FFS if to Introduce the new PUCCH spatial relation activation/deactivation MAC CE for mTRP PUCCH repetition i.e. activating two spatial relation info’s (for FR2) for a group of PUCCH resources in a CC.
* RAN2 to discuss how to support PHR reporting for mTRP PUSCH repetition, and may address e.g:

New MAC CE design including the function which TRP is applied for PHR reporting.

How to incorporate the additional MPE information coming in Rel-17 to the new PHR format

Whether use legacy parameters (timer, threshold, etc.) or adding TRP specific parameters

PHR triggering conditions

* R2 assumes to revise the legacy PUSCH Pathloss Reference RS Update MAC CE with additional field(s) to differentiate the TRP for mTRP PUSCH repetition. other aspects are FFS.
* [AT116-e][015][feMIMO] (Nokia [lead], Ericsson, vivo)

Scope: On RAN1 LSes [R2-2111214](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111214.zip), [R2-2111246](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111246.zip), [R2-2109326](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109326.zip) and their General and high level consequences. Review impacts to RRC (top down) and R2 work, e.g. general observations, structure, common impacts and impact specific to mTRP and MCBF - Find Easy/Potential Agreements, identify points for online discussion, can also identify and capture open issues, and whether LS out is needed. (Comment: please focus on points that need to be discussed/decided to pave the way for more detailed later discussions).

Intended outcome: Report

Deadline: For online W2 Wednesday

DISCUSSION online W1

- Chair: Included: identification of functional impact to be determined by RAN2, included also whether we have questions to RAN1, including questions on the RRC params LS

- Intel wonder if we should have prioritization of feMIMO sub-features, e.g. according to maturity in R1. ZTE think it depends on R1 status. Chair think Inter-cell beam management includes more new things than mTRP, so there may be more confusion for it, but not clear whether any part should be discussed with higher priority.

[R2-2111325](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111325.zip) Summary of [AT116-e][015][feMIMO] Progressing FeMIMO (Nokia [lead], Ericsson, vivo) Nokia, Ericsson, vivo

DISCUSSION

- P5 LG: on P5, R1 will introduce UE cap, R2 doesnt need to consider thiat for now, can consider later based on R1 input. Intel agrees. Apple too, vivo too. ZTE agrees

- 1b: Xiaomi think that 1b may be updated based on R1 input on reception of SSB etc. Think that for serving cell RRM measurements, we may have multiple measurements, need to clarify, OPPO think we will postponed this discussion on 1b. ZTE think this may need to be considered. Docomo wonder how PWS will work with 1b. Nokia clarify that Si and short message only from TRP1, which may cause some interruption to TRP2.

- Ericsson wonder how to continue with the RRC CR. Almost every parameter says that it is for RAN2 decision, we would need detailed agreements for power control and P3. Think the following need to be agreed for P3: Shall have a common list of UL PC parameters. Samsung and vivo agrees with this.

- Ericsson wonder what is easiest: whether to make textual proposals or CR proposal. Huawei would be ok to go for draft CR directly. Apple think R2 can start after the next R1 meeting. vivo think the detailed opinions in this offline can be a basis for RRC design. OPPO Intel and LG think high level structure should be a starting point discussion. OPPO think SSB index pof TRP with different PCI and TCI unified structure should be prioritized.

- P4: Intel doesn't agree P4. Apple think P4 need clarification. OPPO disagrees with this, cannot assume these are common / related to mTRP. Should just follow R1 intentions. Nokia think we can ask in an LS. OPPO are ok with that.

P8

- Ericsson think that all options on the table would give full flexibility, i.e. no restrictions on what to activate, what to indicate.

- Nokia think the question is what is indicated by MAC CEs.

- Ericsson would prefer to start from DL + Joint as one list, and UL as one list and then if that doesn't work then we can merge. Proposes that this can be a working assumption. Think that this makes it easier to explain what is the max.

- Intel think a single list is most simple. Samsung agrees. Nokia agrees

- Samsung think whether TCI state mode is joint or separate TCI state mode is configured.

- Ericsson think Three lists is also simple to capture in RRC. OPPO think 3 lists will be easiest for DCI and MAC CEs.

* 1a: RAN2 to use the terminology "primary TRP (pTRP)" and "additional TRP (aTRP)" for RAN2 discussion purposes. FFS whether these will really be needed in Stage-2/3 specifications.
* 1b: RAN2 does not consider RLM for aTRP in Rel-17 work
* 2a: No RRM enhancements are done in Rel-17 (unless later found critical to the functionality).
* 2b: Add SSB/PCI information for ICBM as cell-level information and link unified TCI state information to that. FFS on exact Stage-3 details.
* 2c: RAN2 starts the RRC CR work based on latest RAN1 input before sending general RRC LS to RAN1.
* 3: The RAN1 parameters for "MultiBeam" are only applicable to ICBM with unified TCI framework (i.e. not to mTRP). Discuss further in Stage-3 phase how the UL PC configuration parameters are defined.
* 4: Rel-17 MPE configuration can be included in PHR-Config. Will ask R1 whether MPE information can apply to both ICBM and mTRP
* 6: RAN2 assumes "mTRP" parameters are not for ICBM and starts Stage-3 work based on that assumption. If ambiguities are found, LS can be sent to RAN1 to ask for clarification from next meeting.
* 7: RAN2 will use one RRC CR for the FeMIMO WI and start the work in post-meeting email discussion. Can discuss RRC structure during the discussion before going for final Stage-3 details.

Chair: On the issue about lists of TCI states P8. Can start e.g. from two lists as RRC rapporteur believes this is simplest. No option is excluded for now. However important: no option is intended to restrict what can be controlled in the end (by RRC, MAC CE, DCI). Shall avoid the “pool” notation for now unless it can be made clear what it is (i.e. what restriction is implied by it). In order to have a constructive discussion likely examples of RRC and consequences for MAC CE and DCI (tentative) are needed.

Will have a post email discussion on RRC

- Details on the plan to be added here

Will send LS to R1 with the Question on MPE

* [AT116-e][017][feMIMO] BFD BFR and Initial Running CRs (Samsung)

Scope: 1) Review the submitted Running CRs in [R2-2110666](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110666.zip) (RRC) and [R2-2110960](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110960.zip) (MAC), collect comments with the goal of endorsement, save comments to be applied to the CRs after this meeting. 2) Treat the proposals in BFD BFR tdocs under AI 8.17.3, identify agreeable points, points for discussion, identify open issues, whether LS out is needed etc.

Intended outcome: Report

Deadline: W2 Wednesday.

CLOSED

[R2-2111474](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111474.zip) Summary of [AT116-e] [017] [feMIMO] BFD BFR and Initial Running CRs Samsung

DISCUSSION

P5

- Nokia think that the size may be an issue and not sure that new MAC CE can be used with MSG3 limitation. Chair think we can make assumption.

- QC think the size may be an issue and think the legacy can also be considered. Think that the legacy MAC CE can be used also for the new cases, think we don’t need to recover both.

* All green-marked proposals are agreed, see below. For Running CR endorsement see R2-2110666 and R2-2110960.
* New BFR MAC CE including beam failure recovery information of both failed TRPs is transmitted when beam failure is detected for both TRPs of SCell. The Following pieces of information are included in enhanced BFR MAC CE for M-TRP BFR

Info 1: For the Identity of serving cell of failed TRP, Ci/SP fields are included.

Info 2: For indicating whether candidate beam is available or not for a failed TRP of serving cell, AC field is included.

Info 3: Candidate beam (if available) for a failed TRP is indicated by including the Candidate RS ID field.

* Both single octet bitmap (7 Ci bits and 1 SP bit) and 4 octet bitmap (31 Ci bits and 1 SP bit) formats are supported for enhanced BFR MAC CE.
* Both truncated and non-truncated enhanced BFR MAC CE are supported.
* Triggered BFRs for a BFD-RS set of a SCell shall be cancelled when a MAC PDU is transmitted and this PDU includes enhanced BFR MAC CE (or Truncated enhanced BFR MAC CE, if supported) which contains beam failure recovery information (i.e. candidate beam available or not, candidate beam if available) of that BFD-RS set of the SCell.
* if a PDCCH addressed to C-RNTI indicating uplink grant for a new transmission is received for the HARQ process used for the transmission of the enhanced BFR MAC CE which contains beam failure recovery information of a BFD-RS set of a serving cell: *BFI\_COUNTER* corresponding to the BFD-RS set of the serving cell is set to 0.
* if the SCell is deactivated, *BFI\_COUNTER* corresponding to each BFD-RS set of the serving cell is set to 0.
* if Random Access procedure initiated on SpCell due to beam failure detection on both TRPs (i.e. BFD-RS sets) of SpCell is successfully completed: *BFI\_COUNTER* corresponding to each BFD-RS set of the SpCell is set to 0.
* if the beamFailureDetectionTimer corresponding to a BFD-RS set of a serving cell expires; or if beamFailureDetectionTimer, beamFailureInstanceMaxCount, or any of the reference signals used for beam failure detection corresponding to a BFD-RS set of a serving cell is reconfigured by upper layers: BFI\_COUNTER for this BFD-RS set of the serving cell is set to 0.
* For SCell configured with multiple TRPs, SR can be triggered irrespective of whether beam failure is detected on one or both TRPs of SCell.
* For SpCell configured with multiple TRPs, SR can be triggered if beam failure is detected on only one TRP of SpCell.
* The cases for which SR is allowed (as per proposal 15, 16), SR is triggered if either of conditions a) and b) below are met:

- If UL-SCH resources are not available for a new transmission; or

- If UL-SCH resources are available for a new transmission but cannot accommodate the enhanced BFR MAC CE or enhanced truncated BFR MAC CE plus its sub header as a result of LCP.

* If a SR was triggered by BFR for a BFD-RS set of a serving cell and a MAC PDU is transmitted and this PDU includes an enhanced BFR MAC CE or a Truncated enhanced BFR MAC CE which contains beam failure recovery information for this BFD-RS set of the serving cell, pending SR is cancelled and the corresponding *sr-ProhibitTimer* is stopped, if running.
* If a SR was triggered by BFR for a BFD-RS set of an SCell and this SCell is deactivated, pending SR is cancelled and the corresponding *sr-ProhibitTimer* is stopped, if running.
* It is assumed that If beam failure is detected on both TRPs (i.e. BFD-RS sets) of an SpCell, UE initiate RACH procedure and transmits new BFR MAC CE including beam failure recovery information needed to recover both TRPs. (other options not excluded for now, it is FFS whether the UE can skip BFR information needed to recover one of the TRPs if there is not enough bits).
* The meaning of “beam failure is detected on both TRPs” is to be clarified, It is FFS which of the following options shall be applied:

Option 1 (12/17): “beam failure is detected on both TRPs” means that BFR is triggered for a TRP of the serving cell while the BFR for another TRP of same serving cell is still pending (i.e. not cancelled).

Option 2 (4/17): “beam failure is detected on both TRPs” means that BFR is triggered for a TRP of the serving cell while the BFR for another TRP of same serving cell is still pending (i.e. not successfully completed)

* Cell specific or TRP specific BFR / BFR cancellation when beam failure is detected on on both TRPs of SCell is to be determined. It is FFS which of the following options shall be applied:

Option 1(5/17): Cell specific BFR of SCell is triggered. Triggered Cell specific BFR of SCell is cancelled when BFR MAC CE containing beam failure information of both TRP of the SCell is transmitted.

Option 2 (12/17): TRP specific BFR for both the failed TRPs remains as pending. TRP specific BFR cancellation procedure (as discussed in Proposal 10) is applied for each TRP independently.

* It is FFS whether Triggered BFRs for a BFD-RS set of a SpCell shall be cancelled when a MAC PDU is transmitted and this PDU includes enhanced BFR MAC CE (or Truncated enhanced BFR MAC CE, if supported) which contains beam failure recovery information (i.e. candidate beam available or not, candidate beam if available) of that BFD-RS set of the SpCell.

LS in

[R2-2109317](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109317.zip) LS Reply on TCI State Update for L1/L2-Centric Inter-Cell Mobility to RAN2 (R1-2108526; contact: Samsung) RAN1 LS in Rel-17 NR\_feMIMO-Core To:RAN2 Cc:RAN3, RAN4, RAN

[R2-2109318](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109318.zip) LS Reply on TCI State Update for L1/L2-Centric Inter-Cell Mobility to RAN3 (R1-2108527; contact: Samsung) RAN1 LS in Rel-17 NR\_feMIMO-Core To:RAN3 Cc:RAN2, RAN4, RAN

[R2-2109319](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109319.zip) LS Reply on TCI State Update for L1/L2-Centric Inter-Cell Mobility to RAN4 (R1-2108528; contact: Samsung) RAN1 LS in Rel-17 NR\_feMIMO-Core To:RAN4 Cc:RAN2, RAN3, RAN

* Noted, inter cell mobility not applicable

[R2-2109364](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109364.zip) Reply LS on TCI state updates for L1/L2 centric inter-cell mobility R4-2115357; contact: Ericsson) RAN4 LS in Rel-17 NR\_feMIMO-Core To:RAN3 Cc:RAN1, RAN2

* Noted

[R2-2109326](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109326.zip) LS on Rel-17 inter-cell multi TRP (R1-2108633; contact: vivo) RAN1 LS in Rel-17 NR\_feMIMO-Core To:RAN2

* Noted

[R2-2111214](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111214.zip) LS Reply on inter-cell beam management and multi-TRP in Rel-17 (R1-2110631; contact: Nokia) RAN1 LS in Rel-17 NR\_feMIMO-Core To:RAN2 Cc:RAN4

- LG think we can close all the issues with modelling can be closed. We should model this as beam resources of the serving cell.

* Noted

[R2-2111246](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111246.zip) LS on Re-17 LTE and NR higher-layers parameter list (R1-2110575; contact: Ericsson) RAN1 LS in Rel-17 NR\_feMIMO, NR\_ext\_to\_71GHz, NR\_IIOT\_URLLC\_enh, NR\_NTN\_solutions, NR\_pos\_enh, NR\_redcap, NR\_UE\_pow\_sav\_enh, NR\_cov\_enh, NR\_IAB\_enh, NR\_SL\_enh, NR\_MBS, NR\_DSS, LTE\_NR\_DC\_enh2, LTE\_NBIOT\_eMTC\_NTN, NB\_IOTenh4\_LTE\_eMTC6, LTE\_terr\_bcast\_bands\_part1 To:RAN2, RAN3 Cc:RAN4

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- Nokia think there may be questions to RAN1 and we should attempt to ask from this meeting.

- Ericsson point out that quite a lot of decisions are left for Ran2, we need to identify functional parts left for R2, e.g. power control. IT seems too much is left for R2.

- Oppo think we need to make high level decisions first, can consider these parameters.

- vivo think we can try to implement parameters into RRC TS and then questions will come up.

- Ericsson think we also need to think about what can be configured together etc, old / new framework.

* Noted

CRs

[R2-2110666](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110666.zip) Running RRC CR for FeMIMO Rel-17 Ericsson draftCR Rel-16 38.331 16.6.0 NR\_feMIMO-Core

* Endorsed as baseline (last meeting agreements included). Comments to be incorporated in CR after the meeting.

[R2-2110960](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110960.zip) MAC Running CR for Rel-17 feMIMO Samsung draftCR Rel-17 38.321 16.6.0 B NR\_feMIMO-Core Late

* Endorsed as baseline (last meeting agreements included). Comments to be incorporated in CR after the meeting.

### 8.17.2 Support of Inter-Cell beam management

RAN2 impacts of inter-cell beam mgmt

[R2-2110341](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110341.zip) On Rel-17 FeMIMO Ericsson discussion NR\_feMIMO-Core

DISCUSSION

- Samsung think there are ongoing discussions in R1. UL could be common or separate.

- MTK support this proposal. Think that what could make it complex is if we have to mix both R16 and R17 new frameworks for one UE.

- Chair proposes a high level text. OPPO want to wait. CATT think we can agree on a high level.

* RAN2 to support separate DL and UL and joint TCI state configurations. Details FFS.

[R2-2109573](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109573.zip) Discussion on inter-cell beam management OPPO discussion Rel-17 NR\_feMIMO-Core

[R2-2109641](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109641.zip) Inter-cell BM and inter-cell mTRP Intel Corporation discussion Rel-17 NR\_feMIMO-Core

[R2-2109745](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109745.zip) Discussion on inter-cell BM and RRC structure for inter-cell BM and mTRP vivo discussion Rel-17 NR\_feMIMO-Core

[R2-2109793](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109793.zip) Inter-cell beam management in RAN2 Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_feMIMO-Core

[R2-2110131](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110131.zip) Discussion on inter-cell beam management Spreadtrum Communications discussion Rel-17

[R2-2110167](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110167.zip) Inter-cell Beam Management and mTRP Qualcomm Incorporated discussion

[R2-2110333](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110333.zip) Discussion on support of inter-cell multi-TRP operation Lenovo, Motorola Mobility discussion Rel-17

[R2-2110435](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110435.zip) Considerations on Inter-cell Beam Management CATT discussion Rel-17 NR\_feMIMO-Core

[R2-2110436](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110436.zip) Discussion on RRC Modeling of Inter-cell Beam Management CATT discussion Rel-17 NR\_feMIMO-Core

[R2-2110534](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110534.zip) Considerations on Inter-Cell Beam Management CMCC discussion Rel-17 NR\_feMIMO-Core

[R2-2110622](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110622.zip) Further Consideration on the inter-cell beam management ZTE Corporation,Sanechips discussion Rel-17 NR\_feMIMO-Core

[R2-2110876](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110876.zip) Inter-cell beam management and inter-cell mTRP Huawei, HiSilicon discussion NR\_feMIMO-Core Revised

[R2-2110976](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110976.zip) Support of Inter-cell Beam Management and Multi-TRP MediaTek Inc. discussion

[R2-2111141](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111141.zip) Inter-cell mTRP and inter-cell BM LG Electronics discussion Rel-17

[R2-2111205](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111205.zip) Inter-cell beam management and inter-cell mTRP Huawei, HiSilicon discussion NR\_feMIMO-Core [R2-2110876](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110876.zip)

[R2-2109746](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109746.zip) Discussion on inter-cell MTRP operation vivo discussion Rel-17 NR\_feMIMO-Core

[R2-2110621](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110621.zip) Further Consideration on the beam managment for intra-cell mTRP ZTE Corporation,Sanechips discussion Rel-17 NR\_feMIMO-Core

RLM RRM

[R2-2110200](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110200.zip) Discussion on RLM for inter-cell Multi-TRP KDDI Corporation discussion

[R2-2110678](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110678.zip) Serving cell measurement for mTRP Xiaomi Communications discussion Rel-17 NR\_feMIMO-Core

### 8.17.3 Other

Other RAN2 impacts

BFD BFR

[R2-2110812](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110812.zip) Beam failure with mTRP Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_feMIMO-Core

[R2-2109529](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109529.zip) Multi TRP Beam Failure Detection and Recovery Samsung Electronics Co., Ltd discussion Rel-17 NR\_feMIMO-Core

[R2-2109642](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109642.zip) Remaining issues on mTRP BFR Intel Corporation discussion Rel-17 NR\_feMIMO-Core

[R2-2109753](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109753.zip) RAN2 impacts of beam failure detection and recovery Fujitsu discussion Rel-17 NR\_feMIMO-Core

[R2-2109760](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109760.zip) Discussion on RAN2 impacts of TRP-specific BFR OPPO discussion Rel-17 NR\_feMIMO-Core

[R2-2110036](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110036.zip) RAN2 impacts of beam failure detection and recovery Apple discussion Rel-17 NR\_feMIMO-Core

[R2-2110334](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110334.zip) Beam failure recovery in multi-TRP Lenovo, Motorola Mobility discussion Rel-17

[R2-2110342](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110342.zip) RAN2 aspects for BFR, BFD and RLM for mTRP operation Ericsson discussion NR\_feMIMO-Core

[R2-2110679](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110679.zip) Remaining issues of mTRP BFR Xiaomi Communications discussion Rel-17 NR\_feMIMO-Core

[R2-2110748](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110748.zip) Discussion on multi-TRP BFR and new MIMO MAC CEs Qualcomm Incorporated discussion Rel-17 NR\_feMIMO-Core

[R2-2110877](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110877.zip) Beam failure recovery for multi-TRP Huawei, HiSilicon discussion NR\_feMIMO-Core Revised

[R2-2110985](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110985.zip) BFR handling on multiple TRP LG Electronics Inc. discussion NR\_feMIMO-Core

[R2-2111206](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111206.zip) Beam failure recovery for multi-TRP Huawei, HiSilicon discussion NR\_feMIMO-Core [R2-2110877](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110877.zip)

Other MAC impacts

[R2-2110962](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110962.zip) UL MAC CE enhancements for multi-TRP Samsung discussion Rel-17 NR\_feMIMO-Core

[R2-2110035](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110035.zip) User plane impact of inter-cell beam management Apple discussion Rel-17 NR\_feMIMO-Core

## 8.18 RACH indication and partitioning

Time budget: Equivalent to 0.5-1 TU

Tdoc Limitation: 2 tdocs

Expected to cover WIs SDT, CovEnh, RedCap, RAN slicing

[R2-2109572](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109572.zip) Discussion on general PRACH partition solution OPPO discussion Rel-17

[R2-2110037](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110037.zip) Common RACH Design Apple discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

[R2-2110270](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110270.zip) Report of [Post115-e][504][RACH Partitioning] Signalling Aspects (Ericsson) Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core Late

[R2-2110559](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110559.zip) RACH partitioning for Rel-17 features Ericsson discussion Rel-17

[R2-2110560](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110560.zip) RNTI collision problem for Rel-17 features Ericsson discussion Rel-17

### 8.18.1 Common signalling framework

Discussion on [Post115-e][504][RACH Partitioning] Signalling Aspects (Ericsson) and any other input for RRC signalling (focus company tdocs on issues that are not addressed in [504] email)

[R2-2109442](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109442.zip) Discussion on RACH Partitioning in RA Configuration Aspect vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

[R2-2109531](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109531.zip) Preamble and RACH resource configuration Samsung Electronics Co., Ltd discussion Rel-17 NR\_cov\_enh-Core, NR\_SmallData\_INACTIVE-Core, NR\_slice-Core Late

[R2-2109540](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109540.zip) Consideration on the common signalling framework for RACH partitioning Beijing Xiaomi Software Tech discussion Rel-17

[R2-2109881](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109881.zip) Support of RACH partitioning for multiple feature combinations Intel Corporation discussion Rel-17 NR\_cov\_enh-Core, NR\_redcap-Core, NR\_UE\_pow\_sav\_enh-Core, NR\_slice-Core

[R2-2110439](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110439.zip) Discussion on RACH partitioning for feature combinations CATT discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

[R2-2110577](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110577.zip) Control plane aspects of RACH partitioning ZTE Corporation, Sanechips discussion Rel-17

[R2-2110597](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110597.zip) Common signalling for RACH indication and partitioning Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

[R2-2110713](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110713.zip) RACH configuration signalling for Feature Combinations Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

[R2-2111163](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111163.zip) Discussion on signalling aspects on RACH partitioning features LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

### 8.18.2 Common aspects of RACH procedure

RACH procedure and input for handling of the common MAC aspects including handling of RACH initiation, retransmissions etc

[R2-2109452](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109452.zip) Selection and fallback between RACH partitions Qualcomm Incorporated discussion Rel-17

[R2-2109532](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109532.zip) RA Procedure Aspects Samsung Electronics Co., Ltd discussion Rel-17 NR\_cov\_enh-Core, NR\_SmallData\_INACTIVE-Core, NR\_slice-Core

[R2-2109542](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109542.zip) Considerations on the common aspects of RACH procedure Beijing Xiaomi Software Tech discussion Rel-17

[R2-2109882](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109882.zip) RACH resource/configuration selection and fallback mechanism Intel Corporation discussion Rel-17 NR\_cov\_enh-Core, NR\_redcap-Core, NR\_UE\_pow\_sav\_enh-Core, NR\_slice-Core

[R2-2110260](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110260.zip) Discussion on RACH indication and partitioning CMCC discussion Rel-17

[R2-2110578](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110578.zip) User plane aspects of RACH partitioning ZTE Corporation, Sanechips discussion Rel-17

[R2-2110598](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110598.zip) MAC aspects for RACH partitioning Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

[R2-2110665](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110665.zip) Overview of RACH resource selection NEC discussion Rel-17 NR\_redcap-Core, NR\_cov\_enh-Core, NR\_SmallData\_INACTIVE-Core, NR\_slice-Core

[R2-2110813](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110813.zip) Selection of RACH partition Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2110917](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110917.zip) RACH indication and partitioning InterDigital discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

[R2-2110927](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110927.zip) Discussion on RACH Partitioning in RA Procedure Aspect vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core R2-2107058

[R2-2111164](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111164.zip) Discussion on common RA procedure for RACH partitioning features LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

## 8.19 Coverage Enhancements

(NR\_cov\_enh-Core; leading WG: RAN1; REL-17; WID: RP-211566)

Time budget: 0.5

Tdoc Limitation: 1 tdoc

Common aspects related to RACH indication (in MSG1) / RACH partitioning shall be submitted to 8.18

### 8.19.1 Organizational

Rapporteur input, incoming LS etc.

[R2-2111210](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111210.zip) Reply LS on Msg3 repetition in coverage enhancement (R1-2110585; contact: ZTE) RAN1 LS in Rel-17 NR\_cov\_enh-Core To:RAN2

### 8.19.2 General

RAN2 impact tech proposals.

[R2-2109443](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109443.zip) Further Discussion on RAN2 Impacts of Msg3 Repetition vivo discussion Rel-17 NR\_cov\_enh-Core

[R2-2109456](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109456.zip) RAN2 aspects of coverage enhancements Qualcomm Incorporated discussion Rel-17 NR\_cov\_enh-Core

[R2-2109503](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109503.zip) Discussion on CE’s impact on the start of ra-ContentionResolutionTimer OPPO discussion Rel-17 NR\_cov\_enh-Core

[R2-2109530](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109530.zip) MAC Aspects of UL Coverage Enhancements Samsung Electronics Co., Ltd discussion Rel-17 NR\_cov\_enh-Core

[R2-2109877](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109877.zip) RAN2 aspects of Msg3 PUSCH repetition Intel Corporation discussion Rel-17 NR\_cov\_enh-Core

[R2-2109894](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109894.zip) Consideration on Msg3 repetition in CE ZTE Corporation, Sanechips discussion Rel-17 NR\_cov\_enh-Core

[R2-2110038](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110038.zip) RAN2 impact of coverage enhancements Apple discussion Rel-17 NR\_cov\_enh-Core

[R2-2110192](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110192.zip) Considerations on requesting Msg3 repetition NEC Corporation discussion Rel-17 NR\_cov\_enh-Core

[R2-2110440](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110440.zip) Analysis on Type A PUSCH repetitions for Msg3 CATT discussion Rel-17 NR\_cov\_enh-Core

[R2-2110814](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110814.zip) RAN2 aspects for Coverage Enhancement Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_cov\_enh-Core

[R2-2110833](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110833.zip) On Type A PUSCH repetitions for Msg3 Ericsson discussion Rel-17 NR\_cov\_enh

[R2-2111026](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111026.zip) Further discussions on RAN2 support of Msg3 PUSCH repetition Huawei, HiSilicon discussion Rel-17 NR\_cov\_enh-Core

[R2-2111160](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111160.zip) Discussion on Msg3 PUSCH repetion LG Electronics Inc. discussion Rel-17 NR\_cov\_enh-Core

## 8.20 Extending NR operation to 71GHz

(NR\_ext\_to\_71GHz-Core; leading WG: RAN1; REL-17; WID: RP-212637)

Time budget: 0.5

Tdoc Limitation: 2 tdocs (note that email discussion outcome documents or rapporteur inputs do not count against Tdoc limitations)

Note: RAN2 is to prioritize protocol support of RAN1 design and not on optimizations on items not discussed in RAN1

### 8.20.1 Organizational

Rapporteur input, incoming LS etc.

### 8.20.2 General

Including discussion on UP aspects based on RAN1 progress (e.g. RLC RTT, RACH, L2 buffer sizes)

Including discussion on UE capabilities (based on information from RAN1/4, and e.g. field description changes for capabilities that differ between FR2-1 and FR2-2, text to use to to express FR2-x differentiation in the FR1/FR2-diff column of 38.306)

Including discussion on whether any existing features require modifications due to FR2-2 (e.g. IDC, LBT)

[R2-2109444](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109444.zip) Discussion on Consistent LBT Failure Detection for Ext 71GHz vivo discussion Rel-17 NR\_ext\_to\_71GHz-Core R2-2107061

[R2-2109604](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109604.zip) Discussion about RAN2 impacts of Ext 52-71GHz Huawei, HiSilicon discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2109605](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109605.zip) Discussion about capability issues of Ext 52-71GHz Huawei, HiSilicon discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2109883](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109883.zip) Further consideration of Capability differentiation between FR2-1 and FR2-2 Intel Corporation discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2109884](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109884.zip) UP impact on NR operation for upto 71GHz Intel Corporation discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2109909](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109909.zip) Aspects of CA operation and protocol impact Ericsson discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2109910](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109910.zip) RRC impact due to FR2-1 and FR2-2 distinction Ericsson discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2110016](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110016.zip) High layer impacts of beyond 52.6GHz OPPO discussion R2-2107255

[R2-2110226](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110226.zip) Considerations on potential LBT impacts Lenovo, Motorola Mobility discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2110338](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110338.zip) Discussion on L2 buffer size Samsung discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2110339](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110339.zip) Impact of higher SCS on DRX parameters Samsung discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2110362](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110362.zip) RA-RNTI and MsgB-RNTI calculations for FR2-2 Sony discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2110557](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110557.zip) FR2-2 considerations Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2110581](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110581.zip) Discussion on UP impacts ZTE Corporation, Sanechips discussion Rel-17

[R2-2110582](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110582.zip) Higher SCS and RSSI impact on RRC ZTE Corporation, Sanechips discussion Rel-17

R2-2111101 Impact analysis of FR-2 on MAC and RRC Qualcomm Incorporated discussion Late

[R2-2111158](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111158.zip) Consideration on L2 buffer size LG Electronics Inc. discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2111159](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111159.zip) Consideration on potential LBT impact LG Electronics Inc. discussion Rel-17 NR\_ext\_to\_71GHz-Core

## 8.21 TEI17

Time budget: 1 TU

This Agenda item is for technical enhancements (of some importance) not covered elsewhere. Corrections to a R16 WI or a R15 WI, e.g. a normal correction to earlier release WI which is only proposed for R17 shall be submitted under the agenda item for the applicable R16 WI or R15 WI (but preferably later).

Note that TEI17 CRs may be agreed-in-principle for postponed final agreement when R17 TSes are to be created.

### 8.21.1 TEI proposals initiated by other groups

Including incoming LSes

**Positioning**

[R2-2111213](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111213.zip) LS on NR Positioning support for TA measurement in NR UL E-CID (R1-2110601; contact: NTT DOCOMO) RAN1 LS in Rel-17 TEI17 To:RAN2, RAN3

* Noted

[R2-2110711](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110711.zip) Addition of Timing Advance measurement reporting in NR E-CID Ericsson, NTT Docomo, Polaris Wireless, Verizon, China Telecom, FirstNet, Deutsche Telekom, Intel Corporation, CATT, Nokia, Nokia Shanghai Bell, Huawei CR Rel-17 38.305 16.6.0 0082 - B TEI17

- Huawei think we don’t need interop statement for Cat B CR.

- Ericsson think we need to add cross reference with other CRs.

- Vodafone wonder whether this can be impl by an earlier release. Chair think R1 should decide that.

* Agreed in principle (with coversheet update, see comments, updates can be included in final version)

### 8.21.2 TEI proposals initiated by RAN2

Tdoc Limitation: 2 tdocs for non-operators, no limit for operators (note that the limitation is counted towards the first company in the list for multi-sourced tdocs)

Note that proposals requires significant support and that the issue to resolved can be made clear. Proposals with low number of co-signers may deprioritized. TEI is not indended as a second chance for any earlier rejected proposal, so proposals that overlap with scope of an ongoing WI, or proposals that has earlier been rejected may be additionally scrutinized.

* [AT116-e][049][TEI17] TEI17 NR proposals (Chairman)

Scope: Collect comments on selected NR TEI17 proposals

Intended outcome: Report

Deadline: Tuesday W2,

CLOSED

[R2-2111537](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111537.zip) [AT116-e][049][TEI17] TEI17 NR proposals RAN2 Chair (MediaTek Inc)

* Noted, outcome taken into account below

#### 8.21.2.1 CP centric

Including outcome of [Post115-e][090][TEI17] Mobility-state-based cell reselection for NR High Speed railway Dedicated Network (CMCC).

Proposals in progress (positive decision has been taken)

HSDN, treat online

[R2-2110238](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110238.zip) Report for [Post115-e][090][TEI17] Mobility-state-based cell reselection for NR High Speed railway Dedicated Network CMCC discussion Rel-17

* Noted

[R2-2110236](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110236.zip) Add the missing HSDN UE capability for LTE CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo CR Rel-15 36.306 15.10.0 1828 - B TEI17

[R2-2110237](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110237.zip) Add the missing HSDN UE capability for LTE CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo CR Rel-16 36.306 16.6.0 1829 - A TEI17

DISCUSSION

- Lenovo has some small comments to CRs in 10236, 10237. The WI code is wrong for those should be TEI15. For 36306 the consequences if not approved need modification.

- Convida wonder if R15 CR can be Cat B. It should be Cat F.

* Both Revised (email)

[R2-2111279](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110236.zip) Add the missing HSDN UE capability for LTE CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo CR Rel-15 36.306 15.10.0 1828 1 F TEI15

[R2-2111280](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110237.zip) Add the missing HSDN UE capability for LTE CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo CR Rel-16 36.306 16.6.0 1829 1 A TEI15

* [038] Both Agreed
* [AT116-e][038][TEI17] Add the missing HSDN UE capability for LTE (CMCC)

Scope: CR approval based on revised [R2-2110236](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110236.zip) and [R2-2110236](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110236.zip). Take comments into account and allow a final check.

Intended outcome: Agreed CRs

Finish Deadline: Friday W1, CLOSED

[R2-2110772](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110772.zip) Introduction of mobility-state-based cell reselection for NR HSDN CMCC CR Rel-17 38.331 16.6.0 2846 - B TEI17

[R2-2110232](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110232.zip) Introduction of mobility-state-based cell reselection for NR HSDN CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo CR Rel-17 38.304 16.6.0 0223 - B TEI17

[R2-2110234](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110234.zip) Introduction of mobility-state-based cell reselection for NR HSDN CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo CR Rel-17 38.306 16.6.0 0650 - B TEI17

[R2-2110235](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110235.zip) Introduction of mobility-state-based cell reselection for NR HSDN CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo CR Rel-17 36.331 16.6.0 4730 - B TEI17

* 4 CRs above are Agreed in principle

PO Alignment – Treat offline

* [AT116-e][039][TEI17] PO determination in RRC\_INACTIVE (ZTE)

Scope: Treat [R2-2110464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110464.zip), [R2-2110464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110464.zip), Collect comments determine what is agreeable. If agreeable, make R17 CRs

Intended outcome: Report, Agreed-in-principle CRs

Finish Deadline: Wednesday W2 (NO CB)

[R2-2110464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110464.zip) PO determination in RRC\_INACTIVE for Rel-17 and later releases ZTE corporation, Sanechips, vivo discussion Rel-17 TEI17

[R2-2110465](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110465.zip) Text proposals for PO determination in RRC\_INACTIVE ZTE corporation, Sanechips, vivo discussion Rel-17 TEI17

Undecided Proposals (has been treated no decision)

Early Measurements

[R2-2111091](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111091.zip) Early measurement for EPS Fallback and Load Distribution vivo, China Telecom, CMCC, SoftBank, NTT DOCOMO INC, China Unicom, Ericsson vodafone discussion Rel-17 TEI17

- Huawei support latency reduction for EPS fallback, but think it will be difficult for the network to predict which UEs will be subject to voice fallback

- Huawei think there is some compatibility issue in the CRs. QC agrees. Raised last meeting the concern on measurement req. Think this concern has not been addressed, think this may cause failure, also think P3 and P4 need to be further discussion.

- ZTE has same concern as Huawei, in order to use this, it will always be used, will result in added power consumption. Wonder if validity area and duration would be applicable.

- Apple has similar concerns and is not interested in this.

- vivo think this is really about reusing a current feature. vivo think the timer blocks very longwinded measurement so the power consumption isn’t that impacted.

- Ericsson think the measurements are adequate as the puporse of early measurements for DC is somewhat similar.

- Nokia wonder if the timer is applicable. Vivo think this completely reuses EMR including the timer.

- Vodafone think that a good UE implementation can start measuring when a call is initiated. It may be sufficient to tell the UE which frequencies are used.

- Apple wonder if the UE need to be capable of EMR or can they be independent.

- Vodafone don’t want to have higher call drop rate for 5G UEs.

- Chair observes that there is significant opposition. In the absence of a quantitative justification it is difficult to push strongly.

* Not Agreed

[R2-2111092](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111092.zip) 38331 CR for Early measurement for EPS Fallback and Load Distribution vivo, China Telecom, CMCC, SoftBank, NTT DOCOMO INC, China Unicom, Ericsson vodafone CR Rel-17 38.331 16.6.0 2861 - B TEI17

[R2-2111093](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111093.zip) 38306 CR for Early measurement for EPSFallback Load Distribution vivo, China Telecom, CMCC, SoftBank, NTT DOCOMO INC, China Unicom, Ericsson vodafone CR Rel-17 38.306 16.6.0 0662 - B TEI17

System Information Scheduling

[R2-2110726](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110726.zip) On the need of providing explicit SI start position for SI Scheduling Ericsson, Verizon, Deutsche Telekom, Softbank, Swift Navigation, ESA discussion Rel-17 R2-2108805

=> Revised in [R2-2111248](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111248.zip)

[R2-2111248](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111248.zip) On the need of providing explicit SI start position for SI Scheduling Ericsson, Verizon, Deutsche Telekom, Softbank, Swift Navigation, ESA, T-Mobile USA discussion Rel-17

- [049] Chair: There seems to be support to have a solution, not yet clear which one and TBD which release. There is support to analyse the issue one round bring more clarity.

- [049] Chair: As baseline Assume this is for Rel-17.

* Long email discussion, both more details on the problem, and the possible solution variants.

[R2-2110799](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110799.zip) SIB and posSIB scheduling constraints MediaTek Inc. discussion Rel-17 TEI17

* [049] Noted

SRS in Dormancy

Had some support in R16 but wasn't done in the end

[R2-2110836](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110836.zip) Periodic SRS in SCell dormant BWP Qualcomm Incorporated, ZTE Corporation, Futurewei discussion Rel-17

- [049] Chair: In R16, R1 didn’t see an issue with this. There is some support, some opposition and some request for clarification. From the comments it is difficult to determine the seriousness of opposition, and there are not many comments on the gain.

DISCUSSION online Nov 9

- QC think the main benefit is fast SL activation, and the TS change is not significant. QC indicate that there is no TS impact in R1. QC would like more opportunity to explain the gains.

- LG wonder about R4 involvement? QC think R4 doesn't need to be involved.

- Ericsson think R1 didn’t indicate if there is an issue but think R1 should be involved in motivating this.

* Chair: can keep on the table (can be discussed next meeting)

Location Privacy in RRC

Moved from 8.21.2.1

[R2-2110047](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110047.zip) User preferences to control location information sharing Apple, Samsung, Google, Xiaomi, Vivo, BT Plc, Rakuten Mobile, MediaTek Inc discussion TEI17

- [049] Chair: There is no consensus to take a RAN2 decision that user consent is applicable to SON, many companies think this is not a RAN2 decision.

- [049] Chair: There is some support and some objections to clarify whether the user can manually disable some provision of information, as specified in RRC.

- [049] Chair comment: For MDT the notation of “available” is including the option that the user can manually disable e.g. GNSS hardware, which can be a separate hardware controlled by a separate system. This should already be clear from MDT stage-2. Can discuss this briefly, even though there is not sufficient support to capture change in the TS.

DISCUSSION online Nov 9

- Apple think that the comments from opponents are not correct.

- LG agrees with Chair comment and think indeed “available” includes the case that the user can disable acc to original decisions for MDT LTE when this word was introduced. Nokia agrees with LG.

- Rakuten would like to understand concerns of other operators.

- CMCC think that having user consent for SON has been discussed in RAN2 it wasn't agreed. Think for SON this is one shot reporting, and there is no need for TS change. Apple point out that SA3 replied to RAN2 recommending to introduce user consent for SON.

- Ericsson think that the note on “available” information in RRC in NR is already applicable to RLF reports etc, not just MDT, so maybe there is no change required. Huawei agrees.

* Noted, no action

gNB ID length

Moved to this AI as proponents now think RAN2 shall decide on this

[R2-2110847](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110847.zip) On broadcasting gNB ID length in system information block and associated CGI reporting (reply to RAN3 LS R3-212966) Ericsson, Verizon Wireless, Bell Mobility, Telus Mobility discussion

- Chair: The proponents asked to have this agreed in RAN2.

- QC think R3 endorsed a network solution and then there is a network based solution, think we should want for R3 solution. Huawei agrees and think R3 has resolved this issue. SS, Nokia, vivo CATT agree with QC.

- Verizon think the R3 network solution has some limitations e.g. doesn't cover network sharing.

* Not agreed

[R2-2110838](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110838.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson, Verizon Wireless, Telus Mobility, Bell Mobility CR Rel-17 36.300 16.6.0 1351 - B TEI17

[R2-2110839](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110839.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson, Verizon Wireless, Telus Mobility, Bell Mobility CR Rel-17 36.306 16.6.0 1831 - B TEI17

[R2-2110840](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110840.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson, Verizon Wireless, Telus Mobility, Bell Mobility CR Rel-17 36.331 16.6.0 4740 - B TEI17

[R2-2110841](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110841.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson, Verizon Wireless, Telus Mobility, Bell Mobility CR Rel-17 38.300 16.7.0 0397 - B TEI17

[R2-2110842](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110842.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson, Verizon Wireless, Telus Mobility, Bell Mobility CR Rel-17 38.306 16.6.0 0654 - B TEI17

[R2-2110844](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110844.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson, Verizon Wireless, Telus Mobility, Bell Mobility CR Rel-17 38.331 16.6.0 2854 - B TEI17

[R2-2110857](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110857.zip) [Draft] Reply LS on broadcasting gNB ID length in system information block Ericsson LS out Rel-17 TEI17 To:RAN3

CGI Report Extension

[R2-2110981](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110981.zip) On the support of NG-based handover using CGI report Huawei, HiSilicon, CMCC, China Telecom, China Unicom discussion Rel-17 TEI17

* [049] Noted, not pursued

[R2-2109716](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109716.zip) CR to 38.331 on support of NG-based (i.e. via CN) handover based using CGI report China Telecom, Huawei, HiSilicon CR Rel-17 38.331 16.6.0 2816 - F TEI17

- [049] Chair: There is no consensus on the usefulness of this proposal.

* [049] Not pursued

[R2-2110856](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110856.zip) On using RAN3 based solution for unsupported SCS+BW of neighbor cell Ericsson discussion

* [049] Noted

New Proposals

EPS Fallback

[R2-2110485](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110485.zip) EPS fallback enhancements for UEs in IDLE/INACTIVE Huawei, HiSilicon, CMCC, China Telecom, China Unicom, LG Uplus discussion Rel-17 TEI17

- [049] Chair: There is some interest, some opposition and many questions. Chair Comment: The main question is whether the gain would be significant, i.e. if this is blind mobility, how much is gained?

* [049] Noted, Keep on the table (can be discussed next meeting)

UL Skipping Control

[R2-2110198](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110198.zip) Fast Control of UL Skipping NTT DOCOMO INC., Ericsson, CMCC, Verizon discussion Rel-17

- [049] Chair: There is no consensus that there is significant gain in L2 control vs current L3 control.

* [049] Noted, Not pursued

Skip RACH on Data Arrival

[R2-2111161](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111161.zip) Skipping RACH upon data arrival NTT DOCOMO, INC. discussion Rel-17

- [049] Chair: Not sufficient support

* [049] Noted, Not pursued

Measurements

[R2-2109773](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109773.zip) Idle/Inactive state measurement enhancement for UEs supporting SUL OPPO, Spreadtrum Communications, Qualcomm discussion Rel-17 TEI17

- [049] Chair: Not sufficient support that the gain would be useful.

* [049] Noted, Not pursued

Fast RLF

[R2-2110055](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110055.zip) Discussion on Fast RLF recovery Apple, Verizon discussion Rel-17 TEI17

* [049] Noted, Not pursued

[R2-2110056](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110056.zip) 38.331 CR to introduce fast RLF recovery (Option 1) Apple, Verizon draftCR Rel-17 38.331 16.6.0 B TEI17

[R2-2110057](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110057.zip) 38.331 CR to introduce fast RLF recovery (Option 2) Apple, Verizon draftCR Rel-17 38.331 16.6.0 B TEI17

* [049] Both Not pursued

- [049] Chair: There are serious doubts about the realistic improvement this can achieve.

Miscellaneous

[R2-2110558](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110558.zip) RMSI alignment and HARQ granularity Nokia, Nokia Shanghai Bell discussion Rel-17 TEI17, NR\_unlic-Core

- [049] Note that this document has two proposals that should be considered individually:

RMTC: Enhance RMTC-Config to allow RSSI measurements to be contained in gNB idle periods.

HARQ: Allow more granular configuration of PDSCH HARQ processes for UE in Rel-17.

- [049] Chair: For RMTC/RSSI there is some sympathy expressed, but most companies also expressed that this is not needed in Rel-17. Not sufficient support. For HARQ, there were no issues found with the proposal, but a number of companies question the need.

* [049] Noted, Not pursued

[R2-2109474](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109474.zip) UE assistance information configuration in RRCResume message OPPO discussion Rel-17 TEI17

- [049] Chair: No support

* [049] Noted, Not pursued

[R2-2111193](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111193.zip) Discussion on early identification of Emergency Call RadiSys, Reliance JIO discussion Rel-17

Moved from 8.24.3,

Chair comment: Proposals for resolving internal load issues in a distributed gNB should be discussed in RAN3 first.

=> revised in R2-2111269

[R2-2111269](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111269.zip) Discussion on early identification of Emergency Call and MPS Radisys, Reliance JIO, Verizon, Peraton Labs discussion Rel-17

- [049] Chair: Confused comment, question whether existing mechanisms not enough. Comment that scope may be significant.

- Chair: Recommend proponents to bring to RP if really wanted.

* [049] no conclusion

Not Treated

[R2-2110845](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110845.zip) Configuration of chronological order for performing inter-frequency measurements Ericsson, Vodafone discussion

[R2-2109475](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109475.zip) Security algorithms update in RRC reestablishment message OPPO discussion Rel-17 TEI17

**Withdrawn**

R2-2110233 Introduction of mobility-state-based cell reselection for NR HSDN CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo CR Rel-17 38.306 16.6.0 0649 - B TEI17 Withdrawn

#### 8.21.2.2 UP centric

Undecided Proposals (has been treated no decision)

[R2-2109730](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109730.zip) C-DRX enhancements for 5G applications vivo, CMCC, China Telecom, China Unicom, Spreadtrum, Guangdong Genius discussion Rel-17 TEI17 R2-2107416

- [049] Chair: Not sufficient support that this is an important problem to be resolved in TEI and the impact is not clear.

* [049] Noted, not pursued

New Proposals

Secondary DRX

[R2-2110417](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110417.zip) Secondary DRX enhancements Ericsson, Verizon, Qualcomm Inc discussion Rel-17 TEI17

=> Revised in [R2-2111229](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111229.zip)

[R2-2111229](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111229.zip) Secondary DRX enhancements Ericsson, Verizon, Qualcomm Inc, T-Mobile USA Inc discussion Rel-17 TEI17

=> Revised in R2-2111460 (the order of sourcing companies was corrected)

[R2-2111460](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111460.zip) Secondary DRX enhancements Verizon, Ericsson, Qualcomm Inc, T-Mobile USA Inc discussion Rel-17 TEI17

- [049] Chair: Most comments about P1, There is significant support but also some opposition, and questions whether this really gains something cmp to other mechanisms.

* [049] Noted, Keep on the table (can be discussed next meeting)

UPIP

In the below document, only the first proposal on IP

[R2-2109951](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109951.zip) User Plane Improvements Nokia, Nokia Shanghai Bell discussion Rel-17 TEI17

- [049] only consider the following Proposal: allow a mode of operation where only a subset of PDCP SDUs is IPed.

- [049] Chair: Some support, consensus that this need to looked at by SA3 if agreeable. Opposition based on complexity.

DISCUSSION online Nov 8

- Apple think this will compromise security. Chair also wonder.

- Nokia think that if IP fails the whole TB is discarded. Think all parts are secured as this is one physical entity.

- Huawei think indeed this need to be discussed in SA3. It should start in SA3, we should not send an LS.

- Intel think we always have protected against man in the middle attacks, think also that there is now mandate to support UPIP at full rate this is not the way to relax.

- Chair observes that sending an LS for consulting another group is not normal practice for TEI but can be done if we agree: Wonder if anyone object to sending an LS. QC and Huawei.

- CATT also would like to understand the complexity gain, if HW acceleration is used, selective application of acceleration may not be simpler.

- TMO, BT support.

* Cannot agree now (there is some interest, and some doubts).

Other

[R2-2110759](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110759.zip) Efficient UL pre-scheduling operation MediaTek Inc., Qualcomm Inc. discussion Rel-17 TEI17 R2-2109019

- [049] Chair: Some sympathy but Not sufficient support

* [049] Noted, Not pursued

[R2-2109652](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109652.zip) Enabling Multi-TB CGs on licensed bands CATT discussion TEI17

- [049] Chair: Not much support and there is opposition.

* [049] Noted, Not pursued

[R2-2109651](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109651.zip) Handling of pending empty PDUs after UCI multiplexing CATT, Lenovo, Motorola Mobility discussion TEI17

- [049] Chair: This was discussed and not agreed in Rel-16, and it seems the attitude in RAN2 hasn’t changed. Not sufficient support

* [049] Noted, Not pursued

[R2-2109851](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109851.zip) Adaptation of QoS Flow to DRB Mapping for MDBV Enforcement Futurewei discussion Rel-17

- [049] Chair: Concerns expressed that the proposed solution may impact reordering, no support to have this for TEI17.

* [049] Noted, Not pursued

[R2-2109852](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109852.zip) Activation/Deactivation of QoS Flow to DRB Mapping for SMBR Enforcement Futurewei discussion Rel-17

- [049] Chair: No support, also it was not accepted for R17 slicing, so not a candidate for TEI17. Concerns expressed that buffering should not take place in SDAP.

* [049] Noted, Not pursued

[R2-2111170](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111170.zip) Stopping CGT for ignored or skipped UL grant LG Electronics Inc. discussion TEI17

* [049] Noted, Not pursued

[R2-2111172](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111172.zip) CR to 38321 on stopping CGT for ignored or skipped UL grant LG Electronics Inc. CR Rel-17 38.321 16.6.0 1177 - F TEI17

* [049] Not pursued

- [049] Chair: Was discussed and not agreed for Rel-16. Attitude in RAN2 has not changed. Also, Concerns expressed regarding backwards compatibility.

Not Treated

[R2-2110070](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110070.zip) SDAP end-marker in RLC UM Apple, Futurewei, Spreadtrum, FGI, Asia Pacific Telecom discussion Rel-17 TEI17

## 8.22 NR and MR-DC measurement gap enhancements

(NR\_MG\_enh-Core; leading WG: RAN4; REL-17; WID: RP-211591)

Time budget: 0.5

Tdoc Limitation: 2 tdocs

Includes: Pre-configured MG pattern(s) (fast MG configuration) - protocol impacts of the mechanisms of activation/deactivation of MG following a DCI or timer based BWP switch, e.g., per BWP MG configuration based on RAN4 input,

Multiple concurrent and independent MG patterns [RAN4, RAN2]. Specification of protocol impacts for multiple concurrent and independent MG patterns based on RAN4 input

Network Controlled Small Gap (NCSG) specification - Procedures and signaling for NCSG patterns.

LS IN

[R2-2109367](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109367.zip) LS on R17 NR MG enhancements – Pre-configured MG (R4-2115438; contact: Huawei & vivo) RAN4 LS in Rel-17 NR\_MG\_enh-Core To:RAN2

* noted

[R2-2109361](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109361.zip) LS on R17 NR MG enhancements – Concurrent MG (R4-2115343; contact: CATT & MediaTek) RAN4 LS in Rel-17 NR\_MG\_enh-Core To:RAN2 Cc:RAN1

* noted

Chair wonder why R4 didn't send LS on NCSG

- MTK think this isn’t mature in R4 yet. Huawei agrees, but think RAN2 can start work.

WP

[R2-2111184](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111184.zip) Work plan of R17 NR and MR-DC measurement gap enhancements WI MediaTek (Rapporteur), Intel (Rapporteur) discussion

- MTK think that R2 can discuss DC even though R4 has not.

* Noted
* [AT116-e][040][MGE] Pre-Configured MG (Intel)

Scope: Progress the pre-configured MG objective, Identify agreements, potential agreements, open issues and related LS questions to ask RAN4, can consider partial TP if suitable.

Intended outcome: Report, Ph2 Approved LS out

Deadline: Monday W2, ph2: EOM

[R2-2111517](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111517.zip) Pre-Configured MG (Intel) Intel

DISCUSSION

P2, P5, P6 to be discussed. P1 P3 P4 for understanding

P1 P3 P4

- P1 vivo think that activation deactivation in P1 is not exactly correct. Intel thikn there is mainly a wording confusion.

P5

- ZTE think we only should support Case 5. Think we can have another round to discuss case 4.

- Huawei also support only Case 5 but ok with P5.

- CATT support both cases, and think R4 has indicated support of case 4. Also wonder if we need to ask R4 (need to ask if only case 5 shall be supported).

- MTK think indeed we are now considering to change R4 decision.

- Intel think that Case 4 5 are easy for UE network respectively. Half of companies want to support both half only case 5. Need more offline in order to decide if to change R4 agreements and only support case 5.

- Chair: Can consider whether there is any aspect of this for the LS to R4.

P2

- Chair Noone in RAN2 find MAC CE based activation deactivation useful,or supports it.

P6

- vivo proposes to ask about our understanding of case 4, whether R2 understanding align with R4 understanding. Samsung think we can inform R4

- ZTE think the intention is clear. Huawei agrees

* At least case 5 is supported for pre-configured gap. FFS for case 4.

Case 4: NW signals the pre-configured gap (A+B in Q1) via RRC, then UE follows BWP status (B) to activates/deactivates gap upon BWP switching

Case 5: NW signals the pre-configured gap (A in Q1) via RRC, then UE determines whether the pre-configured gap should be activated or not upon BWP switching. For example, if it is overlapped with SSB, then pre-configured gap is deactivated, otherwise it is activated.

* RAN2 hasn't seen any usefulness of MAC-CE based activation/deactivation and prefers to not support it.
* Send LS to RAN4 including the agreements above and to clarify:

Can FR1 gap and FR2 gap be configured simultaneously for pre-configured gap?

Can legacy gap and pre-configured gap be configured simultaneously?

* [AT116-e][041][MGE] Concurrent MG (MediaTek)

Scope: Progress the pre-configured MG objective, Identify agreements, potential agreements, open issues and related LS questions to ask RAN4, can consider partial TP if suitable.

Intended outcome: Report, ph2: Approved LS out

Deadline: Monday W2, ph2: EOM

[R2-2111471](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111471.zip) Report of [AT116-e][041][MGE] Concurrent MG (MediaTek) MediaTek Inc.

DISCUSSION

P1 P2 P3

- P2.3: LG think this should be confirmed with R4, not in the LS. MTK think this is the common assumption in R4. LG wonder if this will specified? Is there a problem if same freq is associated with different MOs? MTK think such case doesn't have any R4 requirements.

- P2.3: Huawei propose rewording to *CSI-RS resources in one MO is considered as one freq layer.*

- QC think frequency layer is misused.

- P3: QC think it is too early to decide this. MTK point out that MR DC is in the WID. MTK think we will discuss the details of this at next meeting.

- P1.2: QC think this is not agreeable. MTK think

P4

- CATT still want to ask about MRDC

* RAN2 confirms the following understanding for concurrent gap operation:

1. Concurrent gaps are multiple measurement gaps and each gap pattern could be associated with one or multiple frequency layers.

2. Each frequency layer can be associated with only one of the concurrent gaps.

3. Without considering pre-configured MG, concurrent gaps are always activated if it is setup by the network.

4. No new gap pattern is introduced for concurrent gap, the existing R15/R16 gap pattern could be configured for the concurrent gaps.

* RAN2 to clarify “frequency layer” and limitations as below:

PRS measurement can be associated with one gap pattern, no matter how many frequencies are measured for PRS.

Each measured SSB or LTE frequency is considered as one frequency layer.

Measured CSI-RS resources with the same center frequency is considered as one frequency layer. It is possible to have Multiple MOs including CSI-RS resources with same center frequency.

SSB and CSI-RS measurement in one MO are considered as different frequency layers.

* For current gap, reply RAN4 LS with the following clarification questions

Q1 – Could RAN4 confirm the RAN2 understanding above (P1 to P2)?

Q2 – Could concurrent gap be configured together with legacy gap (i.e. gap without associated frequency layer(s))? Could some of the concurrent gaps be configured without associated frequency layer? If yes, how does UE use the concurrent gaps together with gap without associated frequency layer?

Q3 – How many number of concurrent gap could be configured?

Q4 – Could concurrent gaps be configured with different gap types (i.e. some gaps are per-UE while some gaps are Per-FR)?

Q5 – The impact to gap sharing configuration (*MeasGapSharingConfig*) due to concurrent gap is unclear to RAN2. Should we also have multiple gap sharing configuration?

Q6 – ask about applicability to UTRA

General

[R2-2111187](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111187.zip) Discussion on RAN2 impacts for MG enhancement WI MediaTek Inc. discussion

* Noted

[R2-2110707](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110707.zip) On support of Concurrent MG enhancement Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MG\_enh-Core

DISCUSSION this + p3 mtk ABOVE

- Ericsson think the important thig to discuss is new IE or not and how to do the association MO – GAP.

- Apple think the two variants on the table for the assiocation is feasible. Think we need to understand better, for some cases we just need one gap pattern. Need to know if Gaps can be simultaneously confiugured.

- Intel think we can just agree e.g. P1, MO is linked with frequency.

- Oppo think the relationship is important, MO is not always sufficient, RS type is also needed.

- QC think the current gaps work ok, we need something more for PRS but that is it.

- ZTE thikn R4 has agree to only have one gap pattern for PRS. Think we can choose a baseline CR e.g. MTK and discuss details. ZTE thikn that we should first design for concurrent and preconfig gap independently. Huawei think we can design for using both at the same time.

- ZTE think MR DC solution may be a challenge. Huawei think there will be internode coordination.

- vivo share the view that we need to define the association to MO. Need to decide if to have a new config or not.

- MTK thikn we can ask R4 is legacy gap is used with this.

- LG think P1, P2 P3 from Nokia can be agreed.

- LG wonder where the restriction of P4 is mentioned in the LS.

- Huawei think R4 has defined two kinds of mapping. Purpose and frequency. In some cases mapping to purpose is much better.

- Samsung agrees that freq layer mapping is the first thing to do

Chair wonder if we can agree P1 P2 P3

P1

- Huawei think should is the wrong word. A long discussion on what should be agreed ..

- Chair: OK as soon as we try to agree something everyone are very sensitive to have their own views reflected.

* Noted

[R2-2109875](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109875.zip) Measurement gap enhancement for pre-configured gap Intel Corporation discussion Rel-17 NR\_MG\_enh-Core

DISCUSSION This + P1 P2 from MTK above

- Ericsson think RRC activation deactivation might not be needed. We can just use implicit rule.

- Intel agrees with Ericsson, think just different terminology is used. Intel think switching would typically be done by BWP. Chair wonder if explicit indication at BWP switch is considered.

- Oppo has similar view as Ericsson regarding activation deactivation. Wonder why we need two solutions. Oppo wonder what the first bullet in MTK P1 means. MTK think this can be discussed during ASN.1 work.

- MTK think anyway the RRC indication per BWP is needed. Vivo agrees and understand this is needed, and is a R4 agreement.

- Huawei has same understanding as Ericsson OPPO Intel, think explicit RRC indication is not needed.

- ZTE agrees that legacy parameters can be used and think one more bit is needed to indiocate this is preconfigured. Think the configuration in BWP is optional.

- Apple think R4 has requested explicit indication, think implicit rule will be defined in R4 spec. Apple think the configuration is not exactly cope paste, we don't need to include FR1 FR2 gaps for these gaps.

- vivo think the explicit indication in RRC is optional and can be absent and for this case the other mechanism is needed.

- LGE has the same understanding as Ericsson wrt activation deactivation. Think we need to check the exact UE behaviour that was intended by R4. Think no indication for the preconfigured gap is needed.

- QC agrees with Ericsson and Huawei that activation deactivation will use an implicit rule. Think we should not have explicit signalling every time.

- Samsung think the explicit indication can be helpful based on other activation deactivation triggers.

- Chair think we shall try to understand the R4 design. Maybe we will need to send an LS

* Noted

[R2-2111189](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111189.zip) RRC signaling for measurement gap enhancement MediaTek Inc. draftCR Rel-17 38.331 16.6.0 B NR\_MG\_enh-Core

[R2-2110383](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110383.zip) Measurement gap enhancements LG Electronics Inc. discussion Rel-17

[R2-2110077](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110077.zip) RAN2 impact from Rel-17 measurement gap enhancement Apple discussion Rel-17 NR\_MG\_enh-Core

=> Revised in [R2-2111254](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111254.zip)

[R2-2111254](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111254.zip) RAN2 impact from Rel-17 measurement gap enhancement Apple discussion Rel-17 NR\_MG\_enh-Core

**Pre-Configured MG**

[R2-2110708](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110708.zip) On support of Pre-configured MG enhancement Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MG\_enh-Core

[R2-2110278](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110278.zip) Discussion on Pre-configured MG Huawei, HiSilicon discussion Rel-17 NR\_MG\_enh-Core

[R2-2110905](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110905.zip) Pre-configured measurement gaps Ericsson discussion Rel-17 NR\_MG\_enh-Core

[R2-2109895](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109895.zip) Consideration on pre-configured measurement gap ZTE Corporation, Sanechips discussion Rel-17 NR\_MG\_enh-Core

[R2-2110139](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110139.zip) Discussion on Pre-configured MG OPPO discussion Rel-17 NR\_MG\_enh-Core

[R2-2109731](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109731.zip) Discussion on per-configured measurement gap vivo discussion Rel-17 NR\_MG\_enh-Core

[R2-2109790](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109790.zip) Preconfigured measurement gap patterns Samsung discussion

[R2-2110944](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110944.zip) RAN2 protocol impacts on preconfigured Measurement Gap DENSO CORPORATION discussion Rel-17 NR\_MG\_enh-Core

**Concurrent MG**

[R2-2109876](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109876.zip) Measurement gap enhancement for concurrent gap Intel Corporation discussion Rel-17 NR\_MG\_enh-Core

[R2-2109896](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109896.zip) Consideration on concurrent measurement gap ZTE Corporation, Sanechips discussion Rel-17 NR\_MG\_enh-Core

[R2-2110906](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110906.zip) Concurrent measurement gaps Ericsson discussion Rel-17 NR\_MG\_enh-Core

[R2-2110279](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110279.zip) Discussion on Concurrent MG Huawei, HiSilicon discussion Rel-17 NR\_MG\_enh-Core

[R2-2109694](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109694.zip) Consideration on NR and MR-DC MG enhancements CATT discussion Rel-17 NR\_MG\_enh-Core

[R2-2109695](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109695.zip) [Draft] Reply LS on R17 NR MG enhancements – Concurrent MG CATT LS out Rel-17 NR\_MG\_enh-Core To:RAN4 Cc:RAN1

[R2-2109789](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109789.zip) Multiple concurrent and independent measurement gap patterns Samsung discussion

[R2-2110140](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110140.zip) Discussion on Concurrent MG OPPO discussion Rel-17 NR\_MG\_enh-Core

[R2-2109754](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109754.zip) Discussion on multiple concurrent and independent MG patterns vivo discussion Rel-17 NR\_MG\_enh-Core

[R2-2111152](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111152.zip) Signalling design on concurrent gaps DENSO CORPORATION discussion NR\_MG\_enh-Core

**NCSG**

[R2-2110280](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110280.zip) Discussion on the configuration of NCSG Huawei, HiSilicon discussion Rel-17 NR\_MG\_enh-Core

## 8.23 Uplink Data Compression (UDC)

(NR\_UDC\_enh-Core; leading WG: RAN2; REL-17; WID: RP-211203)

Time budget: 0

Tdoc Limitation: 0 tdocs

No technical input is expected for RAN2 116-e, as this topic will not be treated. A long email discussion for next meeting may be done to prepare for progress. The scope of such discussion can be discussed in the organizational offline meeting thread 000.

[R2-2111066](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111066.zip) Work plan for NR UDC CATT Work Plan Rel-17 NR\_UDC-Core

[R2-2111067](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111067.zip) Discussion on introduction of NR UDC CATT, CMCC, Huawei, HiSilicon, MediaTek discussion Rel-17 NR\_UDC-Core

## 8.24 NR R17 Other

Time budget: 2 TU

Includes items and topics without specific R2 Agenda Item. Includes LS in for R17 items not in a specific R2 Agenda Item. In general incoming LSes are always treated with high priority regardless if specific AI or TU allocation exists.

### 8.24.1 RAN4 led Items

e.g. TxD, TX switching, BCS4/5

Beam information of PUCCH SCell in PUCCH SCell activation

Treat by email, CB online if needed

* [AT116-e][018][NR17] Beam information of PUCCH SCell in PUCCH SCell activation (Huawei)

Scope: Treat [R2-2109360](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109360.zip), [R2-2110486](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110486.zip), [R2-2110088](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110088.zip), [R2-2110089](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110089.zip), [R2-2110487](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110487.zip), [R2-2110964](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110964.zip), R2-211035, [R2-2109566](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109566.zip), [R2-2109569](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109569.zip), [R2-2109659](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109659.zip). Determine agreeable parts, including agreeable Reply LS, Draft CR if applicable.

Intended outcome: Ph1 Report, Ph 2 Approved LS, agreed in principle CR if applicable.

Deadline: Ph 1 Friday W1 (CB Online). Ph2 cancelled, CLOSED

[R2-2111469](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111469.zip) Summary of [AT116-e][018][NR17] Beam information of PUCCH SCell in PUCCH SCell activation (Huawei) Huawei, HiSilicon

DISCUSSION

- Apple proposes rewording

- OPPO think that this is not according to original intention. “PUCCH group” has another intention.

- Chair think we anyway need a reply from R1. Ericsson agrees

- QC think current framework allows this. Support P1 P2 and to update R4

P4

- Ericsson think we don't send an LS. Apple has similar views. Can refer to the meeting notes meanwhile.

* RAN2 understand the existing RAN2 signalling can allow configuration of CSI reporting of PUCCH SCell over the PCell, and whether UE can report CSI of PUCCH SCell on PCell mainly depends on RAN1.
* RAN2 specifications do not differentiate known/unknown SCell, but RAN2 understand that if the CSI reporting of PUCCH SCell over the PCell is concluded as supported in RAN1, the cases asked by RAN4 can be supported.

Chair: RAN2 hasn’t looked at other solutions yet. Wait for RAN1 to determine if this is needed. We don’t send Reply LS (now). We wait for RAN1.

[R2-2109360](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109360.zip) LS on beam information of PUCCH SCell in PUCCH SCell activation procedure (R4-2115339; contact: Huawei) RAN4 LS in Rel-17 NR\_RRM\_enh2-Core To:RAN1, RAN2

[R2-2110486](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110486.zip) Discussion on beam information of PUCCH SCell in PUCCH SCell activation (RAN4 LS) Huawei, HiSilicon discussion Rel-17 NR\_RRM\_enh2-Core

[R2-2110088](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110088.zip) Discussion on LS reply for PUCCH Scell Apple discussion Rel-17 NR\_RRM\_enh2-Core

[R2-2110089](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110089.zip) [Draft] LS reply for PUCCH Scell RAN4 LS Apple LS out Rel-17 NR\_RRM\_enh2-Core To:RAN4 Cc:RAN1

[R2-2110487](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110487.zip) Draft LS Reply on beam information of PUCCH SCell in PUCCH SCell activation procedure Huawei, HiSilicon LS out Rel-17 NR\_RRM\_enh2-Core To:RAN4 Cc:RAN1

[R2-2110964](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110964.zip) [DRAFT] LS Reply on beam information of PUCCH SCell in PUCCH SCell activation procedure Samsung LS out Rel-17 To:RAN4 Cc:RAN1

[R2-2111035](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111035.zip) PUCCH SCell activation Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_RRM\_enh2-Core

[R2-2109566](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109566.zip) Discussion on CSI report for being activated PUCCH SCell OPPO discussion Rel-17 NR\_RRM\_enh2-Core

[R2-2109569](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109569.zip) Draft LS on CSI report of PUCCH SCell OPPO LS out Rel-17 NR\_RRM\_enh2-Core To:RAN4 Cc:RAN1

[R2-2109659](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109659.zip) Draft CR on CSI report of PUCCH SCell OPPO draftCR Rel-17 38.321 16.6.0 F TEI17

* [018] 10 tdocs above are Noted

Tx Diversity

Treat by email

* [AT116-e][019][NR17] TX Diversity(vivo)

Scope: Treat [R2-2109359](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109359.zip), [R2-2109732](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109732.zip), [R2-2109733](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109733.zip), [R2-2111055](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111055.zip), [R2-2111056](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111056.zip) Determine agreeable parts, including CRs, Reply LS if applicable.

Intended outcome: Report, agreed CRs Approved LS, if applicable.

Deadline: Wed W2

[R2-2109359](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109359.zip) Reply LS to RAN2 on the capability of transparent TxD (R4-2115111; contact: vivo) RAN4 LS in Rel-17 NR\_RF\_TxD-Core To:RAN2 Cc:RAN1, RAN5

* [019] Noted

[R2-2109732](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109732.zip) CR on 38.306 for the capability of supporting txDiversity vivo CR Rel-16 38.306 16.6.0 0574 - C NR\_RF\_TxD-Core R2-2104916

[R2-2109733](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109733.zip) CR on 38.331 for the capability of supporting txDiversity vivo CR Rel-16 38.331 16.6.0 2589 - C NR\_RF\_TxD-Core R2-2104917

* [019] both not pursued

[R2-2111055](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111055.zip) CR on 38.331 for introducing UE capability of txDiversity CMCC CR Rel-16 38.331 16.6.0 2859 - C TEI16, NR\_RF\_TxD-Core

* [019] Revised

R2-211xxxx CR on 38.331 for introducing UE capability of txDiversity CMCC CR Rel-16 38.331 16.6.0 2859 1 C TEI16, NR\_RF\_TxD-Core

[R2-2111056](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111056.zip) CR on 38.306 for introducing UE capability of txDiversity CMCC CR Rel-16 38.306 16.6.0 0660 - C TEI16, NR\_RF\_TxD-Core

* [019] Revised

R2-211xxxx CR on 38.306 for introducing UE capability of txDiversity CMCC CR Rel-16 38.306 16.6.0 0660 1 C TEI16, NR\_RF\_TxD-Core

**MIMO-dependent BW class**

Treat by email

* [AT116-e][020][NR17] MIMO-dependent BW class (OPPO)

Scope: Treat [R2-2109354](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109354.zip), [R2-2109393](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109393.zip), [R2-2109394](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109394.zip). Determine agreeable parts, including approved Reply LS.

Intended outcome: Ph1 Report, Ph2 Approved LS out

Deadline: Ph1 Friday W1, Ph2 Wednesday W2

CLOSED

[R2-2111464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111464.zip) Summary of [AT116-e][020][NR17] MIMO-dependent BW class (OPPO) OPPO

* [020] (ph1) Noted, agreements reflected in drafting of LS out in ph2

[R2-2109354](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109354.zip) LS on signalling for intra-band CA with UL-MIMO (R4-2114754; contact: OPPO) RAN4 LS in Rel-17 NR\_RF\_FR1\_enh To:RAN2

[R2-2109393](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109393.zip) Discussion on MIMO-dependent bandwidth class and frequency separation OPPO, Ericsson, ZTE Corporation, Sanechips discussion Rel-17 NR\_RF\_FR1\_enh

* [020] 2 tdocs above are Noted

[R2-2109394](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109394.zip) Reply LS on signalling for intra-band CA with UL-MIMO OPPO LS out Rel-17 NR\_RF\_FR1\_enh To:RAN4

* [020] revised

[R2-2111465](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111465.zip) Reply LS on signalling for intra-band CA with UL-MIMO OPPO LS out Rel-17 NR\_RF\_FR1\_enh To:RAN4

* [020] Approved

Power Class

Treat by email

* [AT116-e][021][NR17] Power Class (Qualcomm, China Telecom)

Scope: Treat [R2-2109355](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109355.zip), [R2-2109796](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109796.zip), [R2-2109797](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109797.zip), [R2-2109356](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109356.zip), [R2-2109799](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109799.zip), [R2-2110425](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110425.zip), [R2-2110426](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110426.zip), Determine agreeable parts, including CRs, and reply LS if applicable.

Intended outcome: Report, Agreed or agreed in principle CRs, approved Reply LSes if applicable

Deadline: Wed W2.,Offline approval.

[R2-2109355](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109355.zip) LS on signaling for power class 1.5 (R4-2114929; contact: Qualcomm) RAN4 LS in Rel-17 HPUE\_PC1\_5\_n77\_n78 To:RAN2

[R2-2109796](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109796.zip) Duty cycle signalling for power class 1.5 Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.6.0 2817 - C HPUE\_PC1\_5\_n77\_n78-Core

[R2-2109797](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109797.zip) Duty cycle signalling for power class 1.5 Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.6.0 0646 - C HPUE\_PC1\_5\_n77\_n78-Core

[R2-2109356](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109356.zip) LS on UE capability for UE power class 2 NR inter-band CA and SUL configurations (R4-2114933; contact: China Telecom) RAN4 LS in Rel-17 NR\_SAR\_PC2\_interB\_SUL\_2BUL To:RAN2

[R2-2109799](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109799.zip) UE capability for UE power class 2 NR inter-band CA and SUL configurations Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SAR\_PC2\_interB\_SUL\_2BUL-Core

[R2-2110425](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110425.zip) CR to TS 38.306 on UE capability for UE power class 2 NR inter-band CA and SUL configurations China Telecom, Huawei, HiSilicon CR Rel-17 38.306 16.6.0 0651 - B NR\_SAR\_PC2\_interB\_SUL\_2BUL

[R2-2110426](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110426.zip) CR to TS 38.331 on UE capability for UE power class 2 NR inter-band CA and SUL configurations China Telecom, Huawei, HiSilicon CR Rel-17 38.331 16.6.0 2829 - B NR\_SAR\_PC2\_interB\_SUL\_2BUL

Irregular BW

Offline first

* [AT116-e][022][NR17] Irregular BW (Nokia)

Scope: Treat [R2-2109353](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109353.zip), [R2-2109353](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109353.zip), [R2-2109889](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109889.zip), [R2-2109890](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109890.zip), [R2-2111153](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111153.zip), [R2-2110787](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110787.zip), [R2-2109794](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109794.zip), [R2-2109795](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109795.zip), [R2-2110086](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110086.zip), [R2-2110087](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110087.zip)

Determine agreeable parts, e.g. Reply LS. Identify discussion points for online (if needed).

Intended outcome: Report, ph2: Approved Reply LS

Deadline: Tue W2 (CB online), ph2: EOM (offline only)

[R2-2111322](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111322.zip) Summary of [AT116-e][022][NR17] Irregular BW Nokia

DISCUSSION

1a, 2a, 3a

- Apple agrees but think it is better to separate the two bullets

4a

- QC think we need to be clear about what is new and what is expected currently supported. Nokia think this is different to 3a. Ericsson support QC.

- ZTE are not sure that first PRB need to be aligned. TS refer to common PRB. ZTE also think this is somewhat different to previous version answer. Think this may not be supported by UEs in the field.

- Huawei think for 4a there would be a new UE capability so we dont need to consider legacy UEs. Nokia think this could be a way forward.

- Apple think the main condition is that the UE is capable of the dedicated CBW.

* On RAN4 questions for "wider CBW":

- RAN2 specification currently assumes usage of only RAN4-defined CBW values

- UE behaviour is not specified when the channel bandwidth configuration exceeds the frequency band borders.

* On RAN4 questions for "overlapping CBWs from network perspective (one cell)", RAN2 specifications assume that a single cell only has a single a) CD-SSB, b) CBW configuration in SIB1, c) CORESET#0, and d) initial BWP. It is possible to have staggered multiple CD-SSBs in time domain, but they will define different cells from UE perspective.
* On RAN4 questions for "overlapping CBWs from UE perspective (two cells/CA)", RAN2 thinks it is not clear whether legacy UEs would support this kind of "overlapping CA" as this was never discussed in RAN2 before and current UE capabilities do not consider any frequency overlap in CA case.
* On RAN4 questions for "overlapping CBWs from UE perspective (one cell)", UE behaviour is not specified when the channel bandwidth configuration exceeds the frequency band borders. RAN2 thinks it is possible from signalling view to override the SIB1 CBW by the dedicated CBW signalling in RRC\_CONNECTED if the UE is capable of the dedicated CBW, and if network ensures the SIB1 CBW and dedicated CBW use the same PRB grid. RAN2 has no consensus whether a new capability is needed to support that the dedicated CBW is outside SIB1 CBW.

Continue offline on the LS out.

[R2-2109353](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109353.zip) LS on specification impact for methods on efficient utilization of licensed spectrum that is not aligned with existing NR channel bandwidths (R4-2114751; contact: Nokia) RAN4 LS in Rel-17 FS\_NR\_eff\_BW\_util To:RAN1, RAN2

[R2-2111209](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111209.zip) Reply LS on specification impact for methods on efficient utilization of licensed spectrum that is not aligned with existing NR channel bandwidths (R1-2110584; contact: Nokia) RAN1 LS in Rel-17 FS\_NR\_eff\_BW\_util To:RAN4, RAN2

[R2-2109889](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109889.zip) Discussion on irregular bandwidth ZTE Corporation, Sanechips discussion Rel-17 FS\_NR\_eff\_BW\_util

[R2-2109890](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109890.zip) Reply LS on irregular bandwidth ZTE Corporation, Sanechips LS out Rel-17 FS\_NR\_eff\_BW\_util To:RAN4, RAN1

[R2-2111153](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111153.zip) On efficient utilization of irregular spectrum Huawei, HiSilicon discussion Rel-17 FS\_NR\_eff\_BW\_util

[R2-2110787](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110787.zip) Specification impact for methods on efficient utilization of licensed spectrum that is not aligned with existing NR channel bandwidths Ericsson discussion

[R2-2109794](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109794.zip) Flexible bandwidth utilization Nokia, Nokia Shanghai Bell discussion Rel-17 FS\_NR\_eff\_BW\_util

[R2-2109795](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109795.zip) Reply LS on flexibile bandwidth utilization Nokia, Nokia Shanghai Bell LS out Rel-17 FS\_NR\_eff\_BW\_util To:RAN4 Cc:RAN1

[R2-2110086](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110086.zip) Discussion on irregular channel bandwidth LS from RAN4 Apple discussion Rel-17 FS\_NR\_eff\_BW\_util

[R2-2110087](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110087.zip) [Draft] reply LS on irregular channel bandwidth feature Apple LS out Rel-17 FS\_NR\_eff\_BW\_util To:RAN4 Cc:RAN1

FR2 UL Gap

Offline first

* [AT116-e][023][NR17] FR2 UL Gap (Apple)

Scope: Treat [R2-2109358](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109358.zip), [R2-2110076](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110076.zip), R2-2100978, [R2-2109570](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109570.zip), [R2-2109571](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109571.zip)

Determine agreeable parts, Identify discussion points for online (if needed).

Intended outcome: Report, Ph2: Approved LS out (offline)

Deadline: Friday W1 (CB online), Wednesday W2

[R2-2111456](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111456.zip) Summary of [AT116-e][023][NR17] FR2 UL Gap (Apple) Apple

DISCUSSION

P9

- Apple explains that R4 has agreed to both RRC and MAC CE.

- Nokia think this is not so real time critical and think RRC would work and is simpler. Huawei agrees. QC and LG agrees

* At least the following three parameters are included in FR2 UL gap configuration.

a) gapOffset

b) ugl

c) ugrp

* Agree to use explicit configuration on *ugl* and *ugrp* for FR2 UL gap configuration (same as in NR meas gap configuration).
* Using UAI message to indicate the need of FR2 UL gap activation/deactivation, if RAN4 agrees with the need.
* Activate/deactivate FR2 UL gap by RRC (no agreement in RAN2 for MAC CE for now).
* Will send LS with questions (discuss details in ph2)

[R2-2109358](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109358.zip) LS on UL gap in FR2 RF enhancement (R4-2114965; contact: Apple) RAN4 LS in Rel-17 NR\_RF\_FR2\_req\_enh2 To:RAN2

[R2-2110076](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110076.zip) RAN2 impact from UL gap in FR2 RF enhancement Apple discussion Rel-17 NR\_RF\_FR2\_req\_enh2

[R2-2109798](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109798.zip) UL gaps for FR2 Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_RF\_FR2\_req\_enh2

[R2-2109570](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109570.zip) Discussion on UL gap pattern for FR2 TX power management OPPO discussion Rel-17 NR\_RF\_FR2\_req\_enh2

[R2-2109571](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109571.zip) Draft LS on UL gap for FR2 TX power management OPPO LS out NR\_RF\_FR2\_req\_enh2 To:RAN4

BCS4/5

Status: Sent an LS to RAN4 from R2 115e. Awaiting Reply.

Offline first

* [AT116-e][024][NR17] BCS4/5 (ZTE)

Scope: Treat [R2-2110387](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110387.zip), [R2-2110512](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110512.zip)

Intended outcome: Report

Deadline: Monday W2 (CB online), CLOSED

[R2-2111461](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111461.zip) Summary of offline [AT116-e][024][NR17] BCS4/5 (ZTE) ZTE Corporation, Sanechips

DISCUSSION

- Xiaomi think P2 is legacy UE behaviour (no TS impact), P3 need to wait for R4, other proposals are ok.

- CATT think P2 may be problematic, may need to await R4 progress. Xiaomi think R4 will not discuss the compatibility etc issues.

- ZTE agree with Xiaomi for P2 and indeed this is legacy behaviour. Intel agrees

- TMO for P3, think R4 may not decide on the details, and R2 should decide. Support P2, but think BCS 4 5 are mutually exclusive.

- Xiaomi think we should remove P3.

Chair: Can wait for R4: About the relationship between the minimum supported bandwidth that determined based on {channelBWs-UL/DL, supportedBandwidthDL/UL, BCSx(0~3)} and the reported minimum bandwidth of the BCS5, RAN2 wait for RAN4’s LS.

* Once BCS4 was indicated by the UE, the network that supports BCS4 can further determine the supported bandwidth based on the {channelBWs-UL/DL, supportedBandwidthDL/UL, channelBW-90mh }.
* A UE that indicates BCS#4/5 for a band combination should also indicates the other BCS that it supports for this band combination (no specification change expected).
* Ran2 confirm that the below conclusion still work even the BCS4/5 was indicated: (no spec change needed)

“The channel bandwidths of a (not signaled) fallback BC are determined by the bandwidth combination set (BCS) that the UE supports for the explicitly signaled parent BC.”

* RAN2 confirm that the introduction of BCS4 and BCS5 does not cause a backward compatibility problem, and the signalling can be introduced within the existing band combination list, i.e. no need to introduce a new band combination list.
* For DAPS, BCS4/5 follow the same rule as the legacy BCS.
* Fallback per CC feature set is not applicable to the supported minimum bandwidth of BCS5.

[R2-2110387](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110387.zip) Consideration on the BCS4/5 Supporting ZTE Corporation, Sanechips discussion Rel-17 NR\_BCS4-Core

* [024] Noted

[R2-2110512](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110512.zip) Introduction of BCS4 and BCS5 Qualcomm Incorporated discussion Rel-16 NR\_BCS4-Core

* [024] Noted

**UL TX Switching**

Offline first

* [AT116-e][025][NR17] UL TX Switching & 100M BW (Huawei)

Scope: Treat [R2-2111059](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111059.zip), [R2-2111060](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111060.zip), [R2-2111061](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111061.zip), [R2-2110424](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110424.zip), [R2-2110974](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110974.zip)

Determine agreeable parts, Identify discussion points for online (if needed).

Intended outcome: Report, if applicable: LS out, endorsed CRs.

Deadline: Thu W2 (CB online Thu W2 if needed)

DISCUSSION

- QC prefers to use official input from R1. Apple and Oppo agrees. Huawei think this isn’t the right way forward. Huawei think we doesn’t need to wait for 1TX to 2TX switching to discuss singling principles. QC think that if we should discuss wed need to ask R1 questions on unclear points, and this wasn't how this discussion was going.

- Huawei propose then that we can ask questions to R1 on unclear points. ZTE think R1 is already discussing RRC configuration for this, so better wait. CATT think we can ask.

* We attempt to progress the 1 TX to 2TX switch case, if there are unclear points can send LS to R1 with questions.

[R2-2111059](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111059.zip) RAN2 signalling to support R17 UL Tx switching enhancements Huawei, HiSilicon, China Telecom, Apple discussion Rel-17 NR\_RF\_FR1\_enh

[R2-2111060](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111060.zip) RRC configuration to support R17 UL Tx switching enhancements Huawei, HiSilicon, China Telecom, Apple draftCR Rel-17 38.331 16.6.0 NR\_RF\_FR1\_enh

[R2-2111061](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111061.zip) Running CR to TS38.331 to support Tx switching enhancements Huawei, HiSilicon, China Telecom, Apple, CATT draftCR Rel-17 38.331 16.6.0 NR\_RF\_FR1\_enh R2-2109225

[R2-2110424](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110424.zip) Running CR to TS 38.306 to support Tx switching enhancements China Telecom, Huawei, HiSilicon, Apple, CATT draftCR Rel-17 38.306 16.6.0 B NR\_RF\_FR1\_enh R2-2109226

**Other**

Treated with above

[R2-2110974](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110974.zip) Discussion on 100M bandwidth capability for Rel-17 Huawei, HiSilicon discussion Rel-17 NR\_bands\_R17\_BWs

* No CR is required for R17

### 8.24.2 RAN1 led Items

e.g. DSS (expect that DSS work is initiated by LS from R1)

**DSS**

Offline first, then online

* [AT116-e][026][NR17] DSS (Ericsson)

Scope: Treat [R2-2109332](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109332.zip), [R2-2110731](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110731.zip), [R2-2110729](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110729.zip), [R2-2109953](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109953.zip), [R2-2111025](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111025.zip), [R2-2110507](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110507.zip), R2-21000730.

Collect a round of comments, Identify potentially easy agreements, identify discussion points for online.

Intended outcome: Report, ph2 endorsed stage-2 CR

Deadline: Monday W1 (online), ph2: EOM (offline only)

CLOSED

[R2-2111459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111459.zip) Summary of [AT116-e][026][NR17] DSS (Ericsson) Ericsson

DISCUSSION

- Ericsson reports that L1 parameters are stable, not sure whether we need R1 confirmation. R1 has working assumption. Can wait.

- Chair: expect to discuss further next meeting, e.g. RRC impact, MAC impact.

- Ericsson will submit a RRC running CR for next meeting, can contact editor for providing comments and views (rather than submitting separate draft CRs).

* Endorse the stage 2 running CR R2-2110729 with editorial changes proposed in R2-2109953, update checked and endorsed offline.

[R2-2110729](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110729.zip) stage2 38.300 running CR for DSS Ericsson draftCR Rel-17 38.300 16.7.0 NR\_DSS

* Revised

[R2-2111542](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111542.zip) stage2 38.300 running CR for DSS Ericsson draftCR Rel-17 38.300 16.7.0 NR\_DSS

* [026] Endorsed

[R2-2109332](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109332.zip) LS on Cross-carrier scheduling from SCell to P(S)Cell (R1-2108662; contact: Ericsson) RAN1 LS in Rel-17 NR\_DSS To:RAN2

[R2-2110731](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110731.zip) RAN2 impact in DSS WI Ericsson discussion NR\_DSS

[R2-2109953](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109953.zip) Cross-carrier scheduling from SCell to P(S)Cell Nokia (Rapporteur) draftCR Rel-17 38.300 16.7.0 B NR\_DSS

[R2-2111025](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111025.zip) Considerations on cross-carrier scheduling from SCell to P(S)Cell Huawei, HiSilicon discussion Rel-17 NR\_DSS-Core R2-2108620

[R2-2110507](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110507.zip) Discussion on Cross-Carrier Scheduling from sSCell to P(S)Cell vivo discussion Rel-17 NR\_DSS

[R2-2110730](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110730.zip) RRC running CR for DSS Ericsson draftCR Rel-16 38.331 16.6.0 NR\_DSS

* [026] 6 tdocs above are noted

### 8.24.3 Other

MINT

Online Friday W1

* [AT116-e][053][NR17] MINT (Ericsson)

Scope: Take into account on-line agreements, take into account LS in R2-2109818 and tdocs submitted, see below. Determine TS impacts, arrive at agreeable CR and Reply LS out.

Intended outcome: Report, Endorsed Draft CRs to 38304 38331, and Approved LS out. It is assumed this can be done offline.

Deadline: EOM

[R2-2109816](file:///D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_116-e\\Docs\\R2-2109816.zip" \o "D:Documents3GPPtsg_ranWG2TSGR2_116-eDocsR2-2109816.zip) Reply LS on UAC enhancements for minimization of service interruption when disaster condition applies (C1-216253; contact: Ericsson) CT1 LS in Rel-17 FS\_MINT-CT To:RAN2

[R2-2110681](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110681.zip) RAN2 aspects for MINT Ericsson discussion Rel-17

[R2-2109834](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109834.zip) Selection of MINT UAC solution Lenovo, Motorola Mobility discussion Rel-17 FS\_MINT-CT

* 3 tdocs noted

COMMENTS by PROPONENTS, on 40 vs 38

- Ericsson think that 38 impact the procedure text, so 38 is a little more complicated.

- Lenovo think both solutions require text update on access identity 3, 40 has the minor drawbacks that there is an additional calculation step, and there is a dependency on configuration for Accedd id 0. So prefer 38.

- Ericsson think the example in Lenovo paper is not the way it should be done.

DISCUSSION on 40 vs 38

- LG agree with Lenovo. Difference is very small. But prefer 38.

- Chair wonder if there is ever a case when configuration for ID 0 is not there.

- Apple think that If they are independent than reconfiguration in easier, but agrees the comment by ericsson on procedure impact thus prefer 40.

- Chair: Both solutions seems acceptable and rather small. SOH (preference) shows a slight majority for 38.

- Huawei think we need to discuss the details.

- Lenovo think this is a WI in CT and SA right now.

* Will use solution 38
* Send reply LS

Chair: We discuss the other parts offline (support for LS in R2-2109818 acc to input tdocs), including LS out. Attempt to arrive at agreeable TP

[R2-2109818](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109818.zip) LS on system information extensions for minimization of service interruption (MINT) (C1-216297; contact: Ericsson) CT1 LS in Rel-17 MINT To:RAN2 Cc:SA2

- LG think a and b in the LS doesn't impact RAN2 solution. Think it only affects NAS.

- Lenovo has different opinion, and think the signalling cen be different for the PLMNS that share a cell in RAN sharing. Apple agrees and think we should discuss new SIB existing SIB etc.

* Noted, will take into account offline

[R2-2111243](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111243.zip) LS on MINT functionality for Disaster Roaming (S2-2108172; contact: LGE) SA2      LS in     Rel-17   MINT   To:SA3, SA5, CT1, CT4, CT6, RAN2      Cc:SA, CT, RAN

* Noted (wo pres, no action)

[R2-2109835](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109835.zip) Discussion on system information extensions for MINT Lenovo, Motorola Mobility discussion Rel-17 FS\_MINT-CT

[R2-2111146](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111146.zip) RAN2 impact for supporting disaster roaming LG Electronics discussion Rel-17

[R2-2111147](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111147.zip) Text proposal to 38.331 for solution 38 and 40 LG Electronics discussion Rel-17

[R2-2111224](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111224.zip) RAN2 impact from MINT Apple discussion Rel-17 FS\_MINT-CT Late

* [053] 4 tdocs above are noted

EVEX

[R2-2111258](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111258.zip) LS on question and feedback about the EVEX Work Item (C3-215316; contact: Ericsson)    CT3      LS in   Rel-17   EVEX   To:SA4 Cc:SA2, RAN2, SA3, SA6

[000] Proposed Noted

# 9 Rel-17 EUTRA Work Items

## 9.1 NB-IoT and eMTC enhancements

(NB\_IOTenh4\_LTE\_eMTC6-Core; leading WG: RAN1; REL-17; WID: RP-211340)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 4 threads

### 9.1.1 Organizational

Including outcome of [Post115-e][304][NBIOT/eMTC R17] 36.300 running CR (Huawei)

Including outcome of [Post115-e][305][NBIOT/eMTC R17] 36.331 running CR (Qualcomm)

[R2-2110477](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110477.zip) Running CR: Introduction of Rel-17 enhancements for NB-IoT and eMTC Huawei draftCR Rel-17 36.300 16.6.0 B NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2110692](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110692.zip) [Running CR] Introduction of NB-IoT/eMTC Enhancements Qualcomm Incorporated draftCR Rel-17 36.331 16.6.0 NB\_IOTenh4\_LTE\_eMTC6-Core

### 9.1.2 NB-IoT neighbor cell measurements and corresponding measurement triggering before RLF

Including outcome of [Post115-e][301][NBIOT/eMTC R17] RLF measurements (Huawei)

Contributions invited on open issues not covered by email discussion

[R2-2109913](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109913.zip) Discussion on connected mode measurement in NB-IoT Ericsson discussion Rel-17

[R2-2110109](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110109.zip) Remaining FFSs on RLF measurements ZTE Corporation, Sanechips discussion NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2110147](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110147.zip) Network assistance for Re-establishment enhancement Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2110474](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110474.zip) Relaxed monitoring in RRC connected mode Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2110476](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110476.zip) Summary of [301] RLF measurements (Huawei) Huawei report Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2110693](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110693.zip) Consideration on open issues for neighbour cell measurement in RRC connected state Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

### 9.1.3 NB-IoT carrier selection based on the coverage level, and associated carrier specific configuration

Including outcome of [Post115-e][302] [NBIOT/eMTC R17] carrier selection (Ericsson)

Contributions invited on open issues not covered by email discussion

[R2-2109911](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109911.zip) Report of email discussion [302] [NBIOT/eMTC R17] Carrier Selection Ericsson discussion Rel-17 Late

[R2-2109912](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109912.zip) Analysis of Rmax based solution and carrier-based solution Ericsson discussion Rel-17

[R2-2110110](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110110.zip) Option1c for CEL-based paging carrier selection ZTE Corporation, Sanechips discussion NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2110148](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110148.zip) Paging strategy impacts for coverage based paging carrier selection Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2110149](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110149.zip) Network configuration for paging carrier selection based on coverage level Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2110191](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110191.zip) Further discussion on enhanced paging carrier selection NEC Corporation discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core R2-2107391

[R2-2110475](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110475.zip) Discussion on coverage based paging carrier Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2110694](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110694.zip) Further consideration on open issues for coverage-based paging carrier selection Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2110695](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110695.zip) Signalling for coverage-based paging carrier selection Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2111113](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111113.zip) Discussion on details of paging carrier selection options MediaTek Inc. discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

### 9.1.4 Other

Includes WI objectives led by other WGs.

[R2-2109914](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109914.zip) Support of 16-QAM for unicast in UL and DL in NB-IoT Ericsson discussion Rel-17

[R2-2110111](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110111.zip) Remaining FFSs on 16QAM for NB-IoT ZTE Corporation, Sanechips discussion NB\_IOTenh4\_LTE\_eMTC6-Core R2-2107764

[R2-2110112](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110112.zip) Remaining FFSs on 1736bits TBS for eMTC ZTE Corporation, Sanechips discussion NB\_IOTenh4\_LTE\_eMTC6-Core R2-2107763

[R2-2110473](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110473.zip) L2 buffer size calculations for eMTC and NB-IoT enhancements Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core R2-2107431

[R2-2110800](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110800.zip) On remaining issues of 16QAM Nokia Solutions & Networks (I) discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6

## 9.2 NB-IoT and eMTC support for NTN

(LTE\_NBIOT\_eMTC\_NTN; leading WG: RAN1; REL-17; WID: RP‑211601)

Time budget: 0.5 TU

Tdoc Limitation: 3 tdocs.

Email max expectation: 3 threads

RP 93e: An LS was sent to SA asking about NAS support for discontinous coverage and WUS. Understanding that RAN work on discontinous coverage shall continue for now (also WUS work if any is needed).

### 9.2.1 Organizational

Rapporteur Input, incoming LSes,

LS in

[R2-2111212](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111212.zip) LS on Validity Timer for UL Synchronization (R1-2110673; contact: MediaTek) RAN1 LS in Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core To:RAN2

- Chair think that if the timer expres then the UE cannot do anything on the UL, not even transmit RACH until the UE can again do precompensation. MTK think yes

- OPPO wonder if there is a relation between this timer and ephemeris into, when will the timer start, and can network know what is the status.

- Nokia wonder if ephemeris change will trigger SI modification, so it may depend on the procedure. R1 concluded that timer shall be (re)started with epoch time when UE reacquires the data.

- Ericsson think this is the same for NR NTN and think we can wait. Think there is nothing the network can do if the network knows the status, and think the network may not always know the status.

- QC agrees with Ericsson. There is no way the network can know the UE status. This timer is completely different to e.g. TA timer.

* Noted

[R2-2111245](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111245.zip) Reply LS on EPS support for IoT NTN in Rel-17 (S2-2108176; contact: MediaTek) SA2 LS in Rel-17 LTE\_NBIOT\_eMTC\_NTN, IoT\_SAT\_ARCH\_EPS To:RAN, CT, CT1, SA, RAN2 Cc:RAN3, CT3, CT4

- QC think that SA2 hasn't done any work at all on this.

- VDF think last meeting there was a lot of work done on this, and there was only one company objecting to a CR. main point that the UE and network can know when UE is in coverage and out of coverage.

* Noted

CRs

The following Running CRs were endorsed after R2 115e: R2-2108922 36.331 (Huawei), R2-2108975 36.304 (Ericsson), R2-2108976 36.321 (MediaTek), R2-2108977 36.300 (Eutelsat).

[R2-2110478](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110478.zip) Running CR - Support of Non-Terrestrial Network in NB-IoT and eMTC Huawei draftCR Rel-17 36.331 16.6.0 B LTE\_NBIOT\_eMTC\_NTN R2-2108922

- Huawei explains that the CR is just updated to next TS version

* noted

### 9.2.2 Support of Non continuous coverage

* [AT116-e][027][IoT-NTN] Non-continuous coverage (Mediatek)

Scope: Ph1 Treat documents under 9.2.2. Identify easy agreements, potential agreements (need discussion), potential alternatives, blocking points, Open issues (Note should only capture Open Issues that must be resolved in the end). Pave the way for on-line Discussion.

Intended outcome: Report

Deadline: Ph1 Monday W2

[R2-2111479](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111479.zip) Summary of 9.2.2 Non continuous coverage MediaTek Inc.

DISCUSSION

P1

- Chair wonder if this is really the same ephemeris as for L1 pre-compensation.

- QC think the data is not complete for the UE. Has concerns on bcast

- Huawei think indeed the ephemeris info provided for L1 precompensation is not sufficient.

- Ericsson think orbital parameters will be about neighbour cells, next satellite etc. MTK support this view. VDF assumes that orbital parameters are for the constellation not just this satellite.

P2

- Ericsson think also more info is needed.

- Chair think maybe a schedule is needed.

- CATT wonder if coverage are of next cell will be the same

- OPPO think there are other parameters, e.g. elevation angle. Novamint agrees

- QC think this is useful also for moving cells. Gatehouse think this would be very complex. BT and Ericsson agrees.

P5

- Huawei think we need to specify what the UE does in out of coverage. VDF think the UE just need to stay on the same frequency, not search fully.

* Satellite Ephemeris Parameters (not same as for L1 pre-compensation, for the constellation, not just single satellite) is needed for the UE for predicting coverage discontinuity. Other info, e.g. beam info, elevation angle, reference location or corresponding is FFS.
* Providing the start-time of (incoming) satellite’s coverage and end-time of serving satellite’s coverage is needed for Quasi-Earth Fixed satellites.
* From RAN2 point of view, the existing power saving mechanisms e.g. DRX, PSM, eDRX, relaxed monitoring, and WUS can be reused in IoT-NTN. Minor enhancements in existing power saving mechanisms to support discontinuous coverage is FFS.

[R2-2109504](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109504.zip) Discussion on discontinuous coverage for IoT over NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2109640](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109640.zip) Discussion on remaining issues on non-continuous coverage Intel Corporation discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2109702](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109702.zip) Discussion on the support of discontinuous coverage for IoT NTN CATT discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2109821](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109821.zip) Contents and delivery options for Satellite Assistance Information for NTN Gatehouse, Sateliot discussion

[R2-2109965](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109965.zip) Satellite visit time for non-continuous coverage Qualcomm Incorporated discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2110071](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110071.zip) Support of discontinuous coverage Apple discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110114](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110114.zip) Remaining FFSs on discontinuous coverage in IoT NTN ZTE Corporation, Sanechips discussion FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2110130](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110130.zip) Discussion on the issue of non-continuous coverage Spreadtrum Communications discussion Rel-17

[R2-2110262](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110262.zip) Discussion on support of Non continuous coverage CMCC discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110313](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110313.zip) Assistance information for NTN discontinuous coverage Lenovo, Motorola Mobility discussion Rel-17

[R2-2110314](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110314.zip) Enhancement for idle UE power saving in discontinuous coverage Lenovo, Motorola Mobility discussion Rel-17

[R2-2110315](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110315.zip) RRC connection handling for discontinuous coverage in IoT NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2110544](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110544.zip) Power Saving in Discontinuous Coverage for NB IoT NTN Rakuten Mobile, Inc discussion Rel-17

[R2-2110549](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110549.zip) Support of Discontinuous Coverage for IoT-NTN Interdigital, Inc. discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110705](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110705.zip) On aspects of discontinuous coverage in IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110834](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110834.zip) Discontinuous coverage in IoT NTN Ericsson discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110922](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110922.zip) On Discontinuous coverage in IoT-NTN MediaTek Inc. discussion

[R2-2110977](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110977.zip) Discussion on non continuous coverage Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2111112](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111112.zip) Discussion on discontinuous coverage Xiaomi discussion

* [027] 19 tdocs above are Noted

### 9.2.3 User Plane Impact

Expect to converge on baseline UP agreements based on SI agreements and NR NTN progress.

* [AT116-e][028][IoT-NTN] User Plane Impact (OPPO)

Scope: Ph1 Treat documents under 9.2.3. Identify easy agreements, potential agreements (need discussion), potential alternatives, blocking points, Open issues (Note should only capture Open Issues that must be resolved in the end). Pave the way for on-line Discussion.

Intended outcome: Report

Deadline: Ph1 Monday W2

[R2-2111477](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111477.zip) Report of [AT116-e][028][IoT-NTN] User Plane Impact (OPPO) OPPO

DISCUSSION

- P12: Nokia doesn’t agree P12. It is not clear whether this is needed or not. ZTE wonder what should be the network action, think PDCCH order is not needed and dedicated reprovision of eph is not desired. Ericsson agrees. OPPO think the UE shall trigger autonomous recovery.

- P15: IDT think a reasonable phrasing is that we don’t extend buffering requirements.

- 10a: Apple think RRC can be used, and this has only been agreed for NR at initial access. Think there is security concern. Huawei think that NBiot anyway doesn’t have security. IDT point out that for NBiot there is no measurement reporting to reuse. OPPO think we don't have other choices.

P2

- QC think the case of NB-IoT long offset 41ms need to be reconsidered. Think that where the window starts is defined in R2 TS. For NR it is defined in R1 TS. Ericsson think we don't need to ask R1. Think that the params are defined with certain assumptions on UE processing time etc. Think it is best to just add the propagation time to the existing times. Nokia, IDT, CATT, MTK, Huawei agrees with Ericsson. Oppo agrees we don’t need to ask R1, but think adding to the offset also in the long offset case will give worse performance

- Chair: think we don’t need performance enhancement, so if it is easier we should treat the 41ms case just as the other case. Can keep the FFS for now.

* The estimate of UE-eNB RTT is equal to the sum of UE’s TA and K\_mac, where the UE’s TA is given by , and K\_mac value is broadcasted by network.
* RAN2 confirm that the start of mac-ContentionResolutionTimer is delayed by UE-eNB RTT in IoT NTN.
* Any enhancements on (N)PRACH resource selection in IoT NTN will not be pursued in Rel-17.
* An offset equal to UE-eNB RTT is added to the formula used for calculating the (UL) HARQ RTT timer in IoT NTN.
* Support UE-specific TA reporting using MAC CE in Msg3/Msg5 for IoT NTN.
* For IoT NTN, UE specific TA reporting during RACH procedure (MSG3/MSG5) in RRC IDLE is enabled/disabled by SI, similar with NR NTN.
* Support TA reporting in RRC connected mode in IoT NTN.
* UE-specific TA report uses MAC CE.
* Support event-triggered for TA reporting in connected mode. Wait for NR NTN agreements for other triggers.
* On how to extend RLC t-Reordering in IoT NTN, wait for NR NTN agreements and see if they can be reused.
* Don’t change the L2 buffer requirement for IoT NTN (assume the network may need to limit the bit rate in order to not exceed L2 buffer).
* The PDCP discardTimer should be extended to support eMTC over NTN.
* If PDCP discardTimer is agreed to be extended to support eMTC over NTN, how to extend the timer value can wait for the conclusion for RLC t-reordering timer.
* The ra window start offset is defined as sum (current offset, UE-eNB RTT) and current offset is defined in TS36.321 (FFS if applicable to NB-IoT 41ms offset)

[R2-2109505](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109505.zip) Discussion on UP impact for IoT over NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110550](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110550.zip) IoT-NTN UP impacts Interdigital, Inc. discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2109701](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109701.zip) Discussion on TA information reporting for IoT NTN CATT discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110919](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110919.zip) Validity Timer Expiry and Synchronization Loss in IoT-NTN MediaTek Inc. discussion

[R2-2109966](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109966.zip) UL synchronization validity timer in RRC\_CONNECTED Qualcomm Incorporated discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2110115](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110115.zip) Remaining FFSs on UP in IoT NTN ZTE Corporation, Sanechips discussion FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2110268](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110268.zip) Discussion on UP aspects for IoT-NTN CMCC discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110479](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110479.zip) User plane for IOT NTN Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110706](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110706.zip) On User Plane aspects for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110953](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110953.zip) User plane aspects of NB-IoT and LTE-M in NTNs Ericsson discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

* [028] 10 tdocs above are Noted

### 9.2.4 Control Plane Impact

Expect to converge on baseline CP agreements based on SI agreements and NR NTN progress.

* [AT116-e][029][IoT-NTN] CP Idle mode Cell and TA related (Ericsson)

Scope: Ph1 Treat documents under 9.2.4, Related to Idle mode mobility, paging and Handling of Cell deployments and TA. Identify easy agreements, potential agreements (need discussion), potential alternatives, blocking points, Open issues. Pave the way for on-line Discussion.

Intended outcome: Report

Deadline: Ph1 Monday W2

[R2-2111516](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111516.zip) Report of [Offline-029][IoT-NTN] Idle mode mobility and TA handling Ericsson

DISCUSSION

P7

- QC think FFS is not correct. IDT wonder whether the FFS is really needed. Intel think that for higher priority freq measurements this is not needed aas the UE will anyway measure.

- Lenovo think that for discontinuous coverage the UE shall not trigger Ncell measurements. QC prefers to not capture anything about non-cont coverage here. Ericsson agrees

- OPPO think we need to be careful

P1/P2

- Huawei think not. The UE will anyway move out of the cell at some point. QC think this should not be allowed, The modification indication need to be provided for long times.

- Intel think this can be left to network impl. Xiaomi agrees, and thikn SI modification can eb used but no strict requirement.

- OPPO think that for NR NTN SI modification can be used (up to network impl).

- VDF proposes that UE can reread based on UE movement.

- Ericsson think this is currently being discussed for NR

P5

- Nokia think as IoT devices are to great extent stationary, the use of soft TACs is better.

P6

- Chair think this may require some discussion if agreed, seems to be a performance optimization.

- QC think that if PLMNs are sharing TACs this will be even worse. VDF agrees, this may be an issue.

- Chair: Suggest we don’t discuss further differentiation of paging (high impact).

P9

- IDT think that due to the agreement that we just did, there may be some impact to relaxed monitoring.

- QC wonder if this means that we rule out all further enhancemetns. Huawei think yes.

P4

- Ericsson proposes to not attempt any agreement now as the discussion was confusing.

* The AS layer indicates to NAS layer all of the received TACs for the selected PLMN.
* For quasi-earth fixed cell, UE should start measurements on neighbour cells before the broadcast stop time of the serving cell, i.e the time when the serving cell stops covering the current area, and the exact time to start measurements (inter and intra-frequency) is up to UE implementation. FFS to what extent this need to be covered in the TS.
* Location-assisted cell reselection (e.g. as for NR NTN) is not supported for IoT NTN in rel 17.
* The use of hard TAC or soft TAC is up to network implementation in earth-fixed and earth-moving cells.
* Relaxed monitoring further enhancements are not considered for IoT NTN in rel-17.

Chair: P1 is Open, the following alternatives were discussed.

1. SI modification procedure may be used to inform UEs of TAC removal based on Network implementation.

2. It is up to UE to re-acquire, network should not use SI info modification

3. There is a TA validity timer that trigger the UE to re-acquire.

* [AT116-e][030][IoT-NTN] CP Other (Huawei)

Scope: Ph1 Treat documents under 9.2.4, Related to RRC, related to provisioning of ephemeris, connected mode, connection setup/release, i.e. docs listed under Other below. Identify easy agreements, potential agreements (need discussion), potential alternatives, blocking points, Open issues. Pave the way for on-line Discussion.

Intended outcome: Report

Deadline: Ph1 Monday W2

[R2-2111475](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111475.zip) [AT116-e][030][IoT-NTN] CP Other (Huawei) Huawei

DISCUSSION

P1 etc

- Ericsson wonder if we should say serving cell ephemeris. Point out that this hasn’t been agreed yet for NR NTN.

- Intel agrees and think the SIB is a NTN-specpfic SIB. Fo P7 think this is for serving cell

- Apple think the ephemeris is not neccesarily serving cell only. Huawei point out that this is the signalling of R1 parameters.

- CATT think we can also bcast this in SIB1, may dep on NR NTN

- QC assumes that this info can be multi cell validity. Chair point out that different to NR there is no support for SI with multicell validity for NB-IoT / eMTC.

- LG think this is not for NR. So we can decide for LTE and NBIoT.

P7

- Nokia wonder if this really works, bec for this inforrmation it could be good to have notification.

- Huawei think that for this info it will not change and the UE doesn't need to read updates. OPPO agrees and think this is stable info. Think this is agreeable.

- CATT think we can also bcast this in other SIB,

- QC think that different cells may have same ephemeris but different stop time. Chair think all SIBs are cell specific in NB-IoT and LTE.

- LGE think the assumption that this is non-changing might not be stable, might be a changing value, so how to support change need to be considered.

P18

- QC think there were proposals on the table. Does not agree with this. Ericsson agrees with QC.

- Chair: it seems P18 is not agreeable for now, however such performance enhancements will have the very lowest priority, as this WI have very low TU allocation.

P16 P17

- Oppo think we can use legacy cell barring

- Apple think R4 will specify new band and we don’t need anything.

- xiaomi think that a legacy will not be able to read SIB scheduling info

- Vodafone support a new barring bit.

P11

- Nokia Ericsson Intel and QC think we can agree.

- Xiaomi think that timer based could be considered. Think A4 should be considered.

- LG also support timer based.

- Huawei think we agreed to not introduce a new trigger.

- CMCC think that any way this is only for eMTC, can keep simple.

- IDT think that A4 was introduced together with time and location based trigger.

- Chair think that this WI barely has enough TU allocation to make CRs, think there is not time for specific discussions.

* The serving cell ephemeris information (used for L1 pre-compensation) is signalled in a new SIB, which is NTN specific.
* Update to serving cell ephemeris information does not affect the system information value tag and does not trigger System information modification procedure. How to trigger re-read of this information is FFS. FFS if the UE shall reacquire the new SIB when SI update is triggered.
* Updates to serving cell ephemeris information are not bound to the BCCH modification period.
* The timing information on when a serving cell is going to stop serving the area is broadcast in the same SIB as the ephemeris information.
* Broadcast of the timing information on when a serving cell is going to stop serving the area is only applicable to quasi earth fixed cell (not to moving cell).
* No enhancement to R16 RLF and RRC connection Re-establishment procedures are introduced in R17. (this does not include handling of UL synchronisation loss which is FFS and does not include non continuous coverage).
* No extension to timers and constants is required for RLF and RRC connection Re-establishment.
* No need to extend the 10 s delay for actions upon reception of RRCConnectionRelease in NB-IoT.
* It is feasible to use the legacy barring bit to block legacy UEs, and it is possible to have a new bit that assumes the functionality of the old bit. It is FFS if it is needed to use the barring bit or whether other mechanism can be assumed (new band etc).
* No enhancement to R16 CHO are introduced in R17.

Idle mode related

[R2-2109633](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109633.zip) On Soft-switch based Tracking Area Updates in IoT-NTN MediaTek Inc. discussion R2-2108323

[R2-2110146](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110146.zip) Further discussion on TA switching and Idle mode procedures for IoT-NTN Nokia, Nokia Shanghai Bells discussion Rel-17

[R2-2110551](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110551.zip) IoT-NTN cell change Interdigital, Inc. discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2109923](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109923.zip) On Cell Re-selection in IoT-NTN MediaTek Inc. discussion

[R2-2110113](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110113.zip) Remaining FFSs on CP in IoT NTN ZTE Corporation, Sanechips discussion FS\_LTE\_NBIOT\_eMTC\_NTN

Other

[R2-2109967](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109967.zip) GNSS fix and Paging response delay Qualcomm Incorporated discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN R2-2107561

[R2-2109506](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109506.zip) Discussion on CP impact for IoT over NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

Not so interesting CHO

[R2-2110020](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110020.zip) Consideration on RRC release for IOT NTN Beijing Xiaomi Mobile Software discussion Rel-17 R2-2107988

[R2-2110480](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110480.zip) Control plane for IOT NTN Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

Ephemeris

[R2-2110072](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110072.zip) Provision of ephemeris Apple discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110770](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110770.zip) Analysis on Mobility Aspects for IoT NTN NEC Telecom MODUS Ltd. discussion

[R2-2110835](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110835.zip) Control plane aspects of IoT NTN Ericsson discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2111030](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111030.zip) Discussion on control plane issues for IoT NTN Xiaomi Communications discussion

Further Optimization

Not included in the email discussions above

[R2-2111045](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2111045.zip) Discussion on CP Impact for IoT over NTN CMCC discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2109703](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109703.zip) Discussion on the mobility issues of IoT NTN CATT discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2110561](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110561.zip) PRACH Congestion mitigation in NTN IoT Rakuten Mobile, Inc discussion Rel-17

## 9.3 EUTRA R17 Other

Time budget: 0 TU

Tdoc Limitation: No limitation but the AI may be entirely deprioritized depending on available time.

Email max expectation: 2 threads

LTE-specific TEI17 documents can be submitted under this agenda item. New TEI17 proposals that are not sourced by at least two companies and two operators may be deprioritized.

Including outcome of [Post115-e][203][TEI17] Event triggered logged MDT for LTE (Qualcomm)

[R2-2109377](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109377.zip) LS Reply on Supporting UP Integrity Protection Policy Handling for Interworking from 5GS to EPS (S2-2106974; contact: Huawei) SA2 LS in Rel-17 FS\_UP\_IP\_Sec To:SA3 Cc:RAN, CT, RAN2, RAN3, CT1, CT4

[R2-2109379](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109379.zip) LS on User Plane Integrity Protection for eUTRA connected to EPC (S3-213272; contact: Qualcomm) SA3 LS in Rel-17 To:RAN3 Cc:RAN2, CT1, CT4, SA2

[R2-2109715](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109715.zip) Introduction of event-based trigger for LTE MDT logging KDDI Corporation, CMCC, Telecom Italia, Samsung, Ericsson, China Unicom, Huawei, HiSilicon, Qualcomm Inc. CR Rel-17 36.331 16.6.0 4724 - B TEI17

[R2-2109717](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109717.zip) Introduction of event-based trigger for LTE MDT logging KDDI Corporation, CMCC, Telecom Italia, Samsung, Ericsson, China Unicom, Huawei, HiSilicon, Qualcomm Inc. CR Rel-17 37.320 16.6.0 0111 - B TEI17

[R2-2109718](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109718.zip) UE’s height location measurement for LTE MDT KDDI Corporation, Ericsson, China Unicom, Samsung, Qualcomm Inc. discussion

[R2-2109924](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109924.zip) [Post115-e][203][TEI] Discussion on details of event-triggered logged MDT for LTE Qualcomm Incorporated report Rel-17 TEI17

[R2-2110080](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110080.zip) Addition of NR-U RSSI/CO measurement UE capability Apple, xiaomi, vivo CR Rel-17 36.331 16.6.0 4729 - F NR\_unlic-Core, TEI17

[R2-2110081](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110081.zip) Addition of NR-U RSSI/CO measurement UE capability Apple, xiaomi, vivo CR Rel-17 36.306 16.6.0 1827 - F NR\_unlic-Core, TEI17

[R2-2110643](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110643.zip) Introduction of event-based trigger for LTE MDT logging Huawei, HiSilicon, Qulacomm Inc., KDDI Corporation CR Rel-17 36.304 16.5.0 0834 - B TEI17

[R2-2110644](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2110644.zip) Introduction of event-based trigger for LTE MDT logging Huawei, HiSilicon, Qualcomm Inc., KDDI Corporation CR Rel-17 36.306 16.6.0 1830 - B TEI17

## 9.4 NR and EUTRA Inclusive language

Time budget: N/A

RAN coordinator for inclusive language is Gino Masini (Ericsson).

CRs were endorsed/agreed-in-principle at R2#112-e. Final approval is expected when R17 TSes are to be created and at that point CRs need to be updated towards latest TS version and submitted again.

Including any updates to the RAN2-endorsed inclusive language CRs ( e.g. for inter-group consistency, inter-group review etc)

[R2-2109338](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109338.zip) Reply LS on Inclusive Language for ANR (R3-214289; contact: Ericsson) RAN3 LS in Rel-17 TEI17 To:SA5, RAN2 Cc:RAN, SA, CT

[R2-2109357](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_116-e\Docs\R2-2109357.zip) LS on Inclusive Language Review Status and Consistency Check (R4-2115067; contact: Ericsson) RAN4 LS in Rel-17 TEI17 To:RAN Cc:RAN2, RAN3

# 10Breakout session reports

No documents shall be submitted to this AI or its sub-AIs. It is only for at-meeting-generated contents.

Breakout session reports will be approved by email.

## 10.1 Session on LTE legacy, Mobility, DCCA, Multi-SIM and RAN slicing

R2-2111291 Report on LTE legacy, DCCA, Multi-SIM, 71GHz and RAN slicing Report Vice Chairman (Nokia)

## 10.2 Session on R17 NTN and RedCap

R2-2111292 Report from Break-out session on R17 NTN, REDCAP and CE Report Vice Chairman (ZTE)

## 10.3 Session on eMTC

R2-2111293 Report eMTC breakout session Report Session chair (Ericsson)

## 10.4 Session on R17 Small data and URLLC/IIOT

R2-2111294 Report for Rel-17 Small data and URLLC/IIoT Report Session chair (InterDigital)

## 10.5 Session on positioning and sidelink relay

R2-2111295 Report from session on positioning and sidelink relay Report Session chair (MediaTek)

## 10.6 Session on SON/MDT

R2-2111296 Report from SON/MDT session Report Session chair (CMCC

## 10.7 Session on NB-IoT

R2-2111297 Report NB-IoT breakout session Report Session chair (Huawei)

## 10.8 Session on LTE V2X and NR SL

R2-2111298 Report from session on LTE V2X and NR SL Report Session chair (Samsung)