3GPP TSG-RAN WG2 Meeting #125 R2-2401541  
Athens, Greece, Febuaray 26 – March 1 2024

Agenda Item: 8.1

Source: Vice Chairman (Samsung)

Title: Report from session on LTE V2X and NR SL

Document for: Approval

Time Schedule   
Please refer to the latest schedule in the RAN2 inbox on the public 3GPP servers.

## List and Status of Offline/Email Discussions

* [POST125][101][V2X/SL] RRC CR update (OPPO)

**Scope:** Approve Rel-18 RRC CR (including agreements made RAN2#125)

**Intended outcome:** RRC CR in R2-2401781. RIL list in R2-2401782

**Deadline:** Short email discussion.

* [POST125][102][V2X/SL] MAC CR update (LG)

**Scope:** Approve Rel-18 MAC CR (including R2-2400962 and agreements made RAN2#125)

**Intended outcome:** MAC CR in R2-2401783

**Deadline:** Short email discussion

* [AT125][103][V2X/SL] IUC Enhancement (Apple)

**Scope:** Check RAN1 status, discuss and determine IUC Enhancement format, field description (if needed), and need of separate (e)LCID reservation.

**Intended outcome:** Discussion summary in R2-2401784 and TP in R2-2401785

**Deadline:** Comeback in CB session (2/29) => Completed.

* [AT125][104][V2X/SL] Others: offline discussion (LG)

**Scope:** Provide MAC CR rapporteur views, discuss and decide proposals from R2-2400152 (P1, P3 and P12), R2-2400258 (P3-2 and P3-2a), R2-2400260, R2-2400270 (P1 and P2), R2-2400294 (P6), R2-2400515 (P2, P3, P4, P5, P6 and P7), R2-2400979, R2-2401125, and R2-2401488. Proposals that are overlapped with online discussion are not discussed. Offline discussion rapporteur can pick up what issues to be discussed f2f offline (e.g. controversial issues, issues that needs f2f offline discussion for understanding each other, etc.) and what issues to be discussed via email (e.g. natural correction/clarification that are very acceptable, proposals that are very not acceptable, etc.).

**Intended outcome:** Discussion summary in R2-2401786 and TP in R2-2401787 (if needed)

**Deadline:** Comeback in CB session (2/29) => Completed.

* [AT125][105][V2X/SL] 38.300 Corrections (IDC)

**Scope:** Discuss corrections/changes in R2-2400256, R2-2400292, R2-2400514, R2-2400769, R2-2401076, R2-2401489, and R2-2400524. Note only corrections and clarifications that capture what RAN2 has decided are part of this email discussion.

**Intended outcome:** 38.300 CR in R2-2401788

**Deadline:** Email based offline discussion. Comeback in CB session (2/29) => Completed.

* [AT125][106][V2X/SL] SL-U carrier + SL CA carriers (including the proposal) (CATT)

**Scope:** Discuss the scenario and proposals.

**Intended outcome:** Discussion summary in R2-2401794.

**Deadline: C**omeback in CB session (2/29) => Completed.

* [POST125][107][V2X/SL] IUC or DRX in co-channel co-existence (Xiaomi)

**Scope:** Prepare LS to RAN1 (including discussion on detailed wordings)

**Intended outcome:** LS in R2-2401796.

**Deadline:** Short email discussion

## Approved outgoing LSs

An LS from [POST125][107]

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

REL-15 and Earlier WIs related to V2x and Sidelink are in scope but not listed explicitly (long list).

This Agenda Item is treated in the V2X and Sidelink Breakout session

## 5.2 NR V2X

(5G\_V2X\_NRSL-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Aug 20; WID: [RP-200129](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200129.zip)).

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.).

R2-2400707 Discussion on stop of ongoing RACH due to SR for SL-BSR CATT, Lenovo, LG Electronics, OPPO, Apple, ASUSTek, Xiaomi, Huawei, HiSilicon discussion

R2-2400708 CR on termination of on-going RACH due to pending SR for SL-BSR CATT, Lenovo, ASUSTek CR Rel-16 38.321 16.14.0 1746 - F 5G\_V2X\_NRSL-Core

R2-2400709 CR on termination of on-going RACH due to pending SR for SL-BSR CATT, Lenovo, ASUSTek CR Rel-17 38.321 17.7.0 1747 - A 5G\_V2X\_NRSL-Core

R2-2400710 CR on termination of on-going RACH due to pending SR for SL-BSR CATT, Lenovo, ASUSTek CR Rel-18 38.321 18.0.0 1748 - A 5G\_V2X\_NRSL-Core

R2-2400368 Correction for terminating on-going RACH due to pending SR for SL-BSR Lenovo CR Rel-16 38.321 16.14.0 1740 - F 5G\_V2X\_NRSL-Core

* Text changes in R2-2400708, R2-2400709, and R2-2400710 are agreed.
* Cover page will be updated based on offline discussion
* Comeback in CB session (2/29)
* Revised CRs in R2-2401865, R2-2401866 and R2-2401867 are agreed.

[Session chair]: If we want to change anyway, it will be good to have clear clarification. [Ericsson]: Prefer simple change. [Apple]: Agree with Session chair. [OPPO]: Ok with CATT CR, but need to update the cover page. Two issues raised in the cover page may not be all correct. First issue seems valid, but second is not.

R2-2400519 Misc RRC corrections for NR V2X Huawei, HiSilicon, OPPO CR Rel-16 38.331 16.15.1 4534 - F 5G\_V2X\_NRSL-Core

R2-2400520 Misc RRC corrections for NR V2X Huawei, HiSilicon, OPPO CR Rel-17 38.331 17.7.0 4535 - A 5G\_V2X\_NRSL-Core

R2-2400521 Misc RRC corrections for NR V2X Huawei, HiSilicon, OPPO CR Rel-18 38.331 18.0.0 4536 - A 5G\_V2X\_NRSL-Core

* For Rel-18 CR, category should be corrected to “A”.
* Rel-16 and Rel-17 CRs are agreed. Rel-18 CR with above change is agreed in R2-2401789.

R2-2400794 Latency bound requirement of NR SL CSI report MediaTek Inc. CR Rel-16 38.331 16.15.1 4556 - F 5G\_V2X\_NRSL-Core

R2-2400910 Latency bound requirement of NR SL CSI report MediaTek Inc. CR Rel-17 38.331 17.7.0 4567 - A 5G\_V2X\_NRSL-Core

R2-2400911 Latency bound requirement of NR SL CSI report MediaTek Inc. CR Rel-18 38.331 18.0.0 4568 - A 5G\_V2X\_NRSL-Core

* Noted.

[Huawei]: It is good to check with RAN1. Note there are also two processing times. [Lenovo] [OPPO][Ericsson][Qualcomm]: Seems not essential. Smart UE implementation avoids the issue.

R2-2401011 Miscellaneous corrections on TS 38.321 LG Electronics France CR Rel-16 38.321 16.14.0 1761 - F 5G\_V2X\_NRSL-Core

* Text change is agreed.
* Update the cover page to include impact analysis.
* Rel-17 CR is in R2-2401790, Rel-18 CR is in R2-2401791.
* Comeback in CB session (2/29)
* Revised CRs in R2-2401852, R2-2401790, and R2-2401791 are agreed.

## 6.6 NR Sidelink enhancements

(NR\_SL\_enh-Core; leading WG: RAN1; REL-17; WID: [RP-202846](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_90e/Docs/RP-202846.zip))

Tdoc Limitation: 1 tdoc

Note for RRC and MAC CRs, CR rapporteur’s summary and suggestion may be provided. 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.).

R2-2400883 Correction on SL DRX for broadcast and groupcast handling missed in RRC reconfiguration ASUSTeK CR Rel-17 38.331 17.7.0 4566 - F NR\_SL\_enh-Core

* Rel-17 CR is agreed. Rel-18 CR is agreed in R2-2401792

[Qualcomm]: We do not have a real dedicated SL DRX configuration for GC and BC. We add that information only for HO case. [Huawei][Apple]: Consider this procedure is missed for HO case. Support the proposal.

R2-2400971 Miscellaneous corrections on TS 38.321 LG Electronics France, Apple CR Rel-17 38.321 17.7.0 1760 - F NR\_SL\_enh-Core

* Text change is agreed.
* Rel-18 CR is in R2-2401793.
* Cover page needs to include impact analysis.
* Comeback in CB session (2/29)
* Revised CRs in R2-2401853 and R2-2401793 are agreed.

R2-2400516 Coexistence between SL DRX and SL IUC Ericsson discussion Rel-17 NR\_SL\_enh-Core

* Noted

[LG]: RAN2 agreement was that IUC in DRX is deprioritized in Rel-17. [Xiaomi]: Share the same understanding as Ericsson. Wonders if there is a need to update RRC or MAC also. [Ericsson]: Intention is only to change stage 2 spec, but no strong opinion. [Apple]: It is already clear by MAC spec. Do not see a real need. [Vivo]: Disagree with the proposal. [Session chair]: Let’s note it now if it is already clear in MAC. Note we will keep the RAN2 agreement.

R2-2400149 Correction on tx profile for SL DRX ZTE Corporation, Sanechips CR Rel-17 38.300 17.7.0 0774 - F NR\_SL\_enh-Core

=> Revised in R2-2401522

R2-2401522 Correction on tx profile for SL DRX ZTE Corporation, Sanechips CR Rel-17 38.300 17.7.0 0774 1 F NR\_SL\_enh-Core

R2-2400150 Correction on tx profile for SL DRX ZTE Corporation, Sanechips CR Rel-18 38.300 18.0.0 0775 - A NR\_SL\_enh-Core

=> Revised in R2-2401523

R2-2401523 Correction on tx profile for SL DRX ZTE Corporation, Sanechips CR Rel-18 38.300 18.0.0 0775 1 A NR\_SL\_enh-Core

* Noted.

[Huawei][CATT][IDC]: Intention is correct, but it is stage 2 spec and it is already clear in stage 3 specs. Seems not essential. [CATT]: We can add RRC as reference. [ZTE]: Think that RRC spec is even not crystal clear. We may need to consider to update RRC.

R2-2400397 Correction on SL DRX Xiaomi Technology CR Rel-17 38.304 17.7.0 0374 - F NR\_SL\_enh-Core

R2-2401485 Correction on SL DRX Xiaomi CR Rel-18 38.304 18.0.0 0386 - A NR\_SL\_enh-Core Late

* Noted.

[Qualcomm][Apple]: 38.304 is for RRC idle and inactive UEs. Dedicated SL DRX configuration is anyway not applied to RRC idle and inactive UEs.

## 7.15 NR Sidelink evolution

(NR\_SL\_enh2; leading WG: RAN1; REL-18; WID: [RP-230077](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_99/Docs/RP-230077.zip))

Time budget: 1 TU

Tdoc Limitation: 1 tdoc per sub-AI (excluding AI 7.15.1, which is reserved for organizational and rapporteur inputs)

### 7.15.1 Organizational

Including incoming LSs and rapporteur inputs. CR rapporteurs are asked to continue maintaining an open issues list reflecting known issues to be handled during the maintenance phase.

R2-2400082 Reply LS on QoS to Carrier Mapping for SL CA (S2-2401579; contact: Qualcomm) SA2 LS in Rel-18 NR\_SL\_enh2-Core To:RAN2 Cc:CT1, SA6

* Noted.

R2-2400083 Reply LS on Tx profile for SL CA (S2-2401581; contact: LGE) SA2 LS in Rel-18 NR\_SL\_enh2-Core To:RAN2 Cc:CT1

* Noted.

[LG]: The attached CR includes that TX profile is also used for RX UE, which is not correct. SA2 has corrected it this meeting.

R2-2400230 RRC Open Issue list for R18 SL-Evo OPPO Work Plan Rel-18 NR\_SL\_enh2

Proposal on issue 1: Keep the FD in the V18.0.0 version and remove this EN.

Proposal on issue 2 (modified): Add bandwidth and SCS in addition to reference point and offset. Remove this EN.

Proposal on issue 3: Keep this EN till R1 update the RRC parameter list.

* Proposal 1,2 and 3 are agreed.

[ZTE]: For issue 2, want to add Bandwidth and SCS.

R2-2400909 MAC open issue list for R18 SL-Evo LG Electronics France Work Plan NR\_SL\_enh2

* Noted.

### 7.15.2 RRC corrections

Corrections for RRC. A single CR with miscellaneous corrections is requested; minor and editorial issues should be coordinated with the CR rapporteur and merged into the miscellaneous CR..

**QoS Flows to carrier mapping for SL CA:**

[Session Chair]: In addition to the agreed LCP enhancement, do we need any additional backup mechanism to handle non-intersection case?

* Option 1: Allow the UE to establish multiple SLRBs for QoS flows that have no common carriers
* Option 2: Introduce LCP based on per packet
* Option 3: Up to the UE implementation
* Option 4: Do nothing (e.g. rely on an appropriate NW (pre)configuration)
* Keep the previous RAN2 agreement.
* Option 4 is agreed to handle non-intersection case.

[Session chair]: Check companies views.

* Option 1: Huawei, Qualcomm, Nokia, Vivo
* Option 2: IDC
* Option 3: Apple, LG, Xiaomi, ZTE, Ericsson, Lenovo
* Option 4: Huawei, LG, Apple, Ericsson, IDC, Nokia

[Session chair]: Challengeable to go option 1 based on companies’ views. Considering two companies (Nokia, Huawei) that supported option 1 are also ok with option 4, can we go option 4? [Lenovo]: With option 4, do we have a kind note “UE behaviour is not specified in the non-intersection case”? [Huawei]: See benefit to have a note. For idle/inactive/OOC UE, the idea is that network that is responsible for the SLRB configuration would take care of this issue as much as possible with the knowledge of QoS flows to carrier mapping information. [Huawei]: Do we need to send another LS to SA2? [OPPO][Apple]: Do not see a need. [Vivo]: See a need to send LS to inform RAN2 decision. Prefer having a note. [Nokia]: If we go option 3 with a note, can it be option 1 also?

[Session chair]: Check companies views between option 1 and option 4.

* Option 1: Huawei, Vivo, Qualcomm, Nokia
* Option 4: LG, Apple, IDC, Xiaomi, ZTE, ASUSTek, Ericsson (+ Nokia, Huawei)

[Nokia][Huawei]: Ok with option 4, [Session chair]: Are we going to have a note or not? [Apple][OPPO][IDC]: No.

R2-2400510 Discussion issues for 38.331 Ericsson discussion Rel-18 NR\_SL\_enh2

R2-2400522 RRC corrections for SL evolution Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

R2-2400947 Discussion on SA2 Reply LS on QoS flow mapping issue Apple discussion Rel-18 NR\_SL\_enh2

R2-2400241 Discussion on S2-2401579 OPPO discussion Rel-18 NR\_SL\_enh2

R2-2400207 Discussion and TP on QoS flow to DRB mapping based on SA2 LS vivo discussion

R2-2401077 Addressing Open Issue on QoS Flow to Carrier Mapping InterDigital discussion Rel-18 NR\_SL\_enh2

R2-2401119 Discussion on QoS flow mapped carriers for SL CA Qualcomm India Pvt Ltd discussion

**RRC RILs:**

R2-2400247 RIL list for R18 SL OPPO report Rel-18 NR\_SL\_enh2

* Agree with all PropAgreed and PropReject.

[Session Chair]: Can we agree all PropAgreed and PropReject? [Session chair]: An updated RIL list needs to be also distributed when the updated RRC CR is approved in POST email discussion.

R2-2400231 Correction on Release-18 SL Evolution OPPO CR Rel-18 38.331 18.0.0 4521 - F NR\_SL\_enh2

* Endorsed.
* Will be merged into the RRC CR in R2-2401781
* [POST125][101][V2X/SL] RRC CR update (OPPO)

**Scope:** Approve Rel-18 RRC CR (including agreements made RAN2#125)

**Intended outcome:** RRC CR in R2-2401781. RIL list in R2-2401782

**Deadline:** Short email discussion.

R2-2400242 Discussion on [O312, X011] OPPO, Xiaomi discussion Rel-18 NR\_SL\_enh2

* TP is agreed.

R2-2400243 Discussion on [O301, X010] OPPO, Xiaomi discussion Rel-18 NR\_SL\_enh2

* TP is agreed.

R2-2400257 [C613] [C614] Essential corrections and left issues in RRC for Rel-18 NR SL evolution CATT discussion

Proposal 1: Specify in the field description of sl-FreqInfoList, sl-FreqInfoListSizeExt that a carrier frequency for NR sidelink operation with shared spectrum channel access can only be configured in sl-FreqInfoListSizeExt.

[OPPO]: Isn’t it a network configuration issue? Network knows there is no legacy UE when SL-U band is used, then the network configures only single legacy carrier for SL-U. [Xiaomi]: If SL-U is included in the extension, how does Rel-18 UE interpret it? Is it considered as a carrier of CA or standalone SL-U carrier? [CATT]: SL-U band is defined in RAN4 spec, so if the carrier is a part of SL-U band, Rel-18 UE understands it’s standalone SL-U carrier. [OPPO]: This change will bring many specification impacts, e.g. the UE uses legacy carrier before SL CA is configured, it needs to be updated according to the change. [Session chair]: Do we have a case that SL CA is configured with SL-U? [LG]: SL CA is not configured with SL-U based on RAN4 defined BC. [Huawei]: CA is intended for ITS band, not associated with SL-U feature. [CATT]: The concerned scenario is when SL-U is configured with SL CA carriers. Although it is not supported from the UE point of view. Network can configure both SL-U carrier and SL-CA carriers at the same time.

Proposal 1a: Adopt the TP in Appendix 1, if Proposal 1 is agreed.

Proposal 1b: If Proposal 1 is agreed, RAN2 undoes the agreement below made in RAN2 #124:

 Rely on clause 16.9.Y of the Stage 2 TS 38.300 CR to clarify that “the additional frequency list for sidelink CA operation is only used for V2X case in this release”.

* [AT125][106][V2X/SL] SL-U carrier + SL CA carriers (including the proposal) (CATT)

**Scope:** Discuss the scenario and proposals.

**Intended outcome:** Discussion summary in R2-2401794.

**Deadline: C**omeback in CB session (2/29).

Proposal 2: Specify in subclause 5.8.8 of RRC Spec that the frequency used for SRB0/1/2/3 transmission for a PC5 RRC connection is the frequency indicated by the sl-FreqInforList or sl-FreqInfoToAddModList, before the reception of initial RRCReconfigurationCompletSidelinke message as specified in subclause 5.8.9.1.9.

Proposal 2a: Adopt the TP in Appendix 2, if Proposal 2 is agreed.

* For proposal 2, Intention is agreed. We will reflect this clarification, but where/how will be further discussed as part of rapporteur CR preparation.

[OPPO]: Agree with the intention, but we may consider putting the sentence into 5.8.9.1a.4

R2-2401794 Summary of [AT125][106][V2X/SL]: SL-U carrier + SL CA carriers (including the proposal) CATT

Proposal 1: RAN2 reaches the common understanding that a gNB implementing Rel-18 SL evolution feature can support a cell only configuring SL-U in SIB12, or a cell only configuring SL CA in SIB12 (but not a cell configuring both).

Proposal 1a: If P1 is not possible, RAN2 postpones the decision on whether both SL-U and SL-CA can be configured in SIB12, looking into first the potential Spec impacts needed.

* RAN2 postpones the decision on whether both SL-U and SL-CA can be configured in SIB12, looking into first the potential Spec impacts needed.

[Session chair]: How a cell only configuring SL-U in legacy carrier works? It seems companies assumed the use is when there is no legacy UEs, however we don’t have a mechanism to bar only legacy SL UEs. [Session chair]: Let’s have more time to think about it. If companies propose both SL-U and SL-CA can be configured in SIB12, please provide whole TP next meeting.

R2-2400295 [X005] Correction on additional RLC bearer release for SL Xiaomi discussion

Proposal 1: For SL DRB or SL SRB, delete the conditions when UE decides not to used PDCP duplication for additional RLC bearer release.

Proposal 2: Adopt the proposed TP in Annex.

* Proposal 1 and 2 are agreed.

R2-2400296 [X006] Correction on additonal RLC bearer addition and modification for RRC connected UE Xiaomi discussion

Proposal 1: RAN2 to discuss whether QoS flows associated with different Tx profiles are allowed to be mapped to the same SLRB in dedicated configuration.

Proposal 2: Adopt the proposed TP in Annex if RAN2 confirms QoS flows associated with different Tx profiles are not allowed to be mapped to the same SLRB in dedicated configuration.

[OPPO]: Key point is whether we mandate the network configuration not to map QoS flows associated with different TX profiles to the same SLRB in dedicated configuration. [Nokia]: If network has limited SLRBs, network may not be able to always map QoS flows associated with different TX profiles to the different SLRB. Prefer keeping the current condition. [Xiaomi]: A purpose of SUI is to avoid this situation. [OPPO]: One way is to remove the concerned condition. [Nokia]: Removing the condition cannot solve the case when the network cannot guarantee the desired mapping. [OPPO]: From two conditions, “if the *SL-TxProfile* of all associated QoS flow(s) for the *sl-ServedRadioBearer* indicates *backwardsIncompatible*” and “if the *SL-TxProfile* of all associated QoS flow(s) for the *sl-ServedRadioBearer* indicates *backwardsCompatible* and UE decides to use PDCP duplication” are removed then the UE still follows network configuration/command. [Apple]: Agree with OPPO. [Xiaomi]: Ok with OPPO proposal.

* From two conditions “if the *SL-TxProfile* of all associated QoS flow(s) for the *sl-ServedRadioBearer* indicates *backwardsIncompatible*” and ““if the *SL-TxProfile* of all associated QoS flow(s) for the *sl-ServedRadioBearer* indicates *backwardsCompatible* and UE decides to use PDCP duplication” will be removed and combine two conditions.

R2-2400297 [X015][O306]Correction on the value of carrier ID Xiaomi, OPPO discussion

Proposal 1: Change the value range of sl-CarrierId from (0..maxNrofFreqSL-1-r18) to (1..maxNrofFreqSL-1-r18).

Proposal 2: Add field description of sl-Carrier-Id and clarify the value is set corresponding to the frequency in sl-FreqInfoListSizeExt broadcast in SIB12 or corresponding to the frequency in sl-PreconfigFreqInfoListSizeExt in SL-PreconfigurationNR. I.e., the legacy carrier should not be a target for the configuration.

Proposal 3: Adopt the proposed TP in Annex.

* Proposal 1 and 2 are agreed. Detailed field description can be further discussed as part of rapporteur’s CR preparation.

[Apple]: Agree with the proposal. [ZTE]: Ok with proposal 1, but concerned with the field description “The value is set corresponding to the frequency in *sl-FreqInfoListSizeExt* broadcast in *SIB12* or corresponding to the frequency in *sl-PreconfigFreqInfoListSizeExt* in *SL-PreconfigurationNR*.”

R2-2400371 [Y003] SL-TxProfiles and their extensions TOYOTA Info Technology Center discussion Rel-18 NR\_SL\_enh2

[Toyota]: Two things to be discussed. One is to clarify where to use this IE and second is to clarify whether we need import / export this IE. [OPPO]: Remember that was not imported because some companies didn’t want to import SL IE to Uu module. [Apple]: If we correct, should we correct it from Rel-17? [Toyota]: No, this model was included from Rel-18.

* Add a clarification where to use this IE.
* RRC CR rapporteur will check with Hakan whether we need to import this IE

[OPPO]: RRC rapporteur suggested to remove SL TX Profile module and introduce the corresponding definition in Uu RRC module.

* Will follow the RRC rapporteur’s suggestion above (remove SL TX profile module and introduce the corresponding definition in Uu RRC module).

R2-2400398 [X020] Correction on SL carrier addition/release/modification triggered SUI Xiaomi discussion

* Rejected.

[Huawei]: SUI transmission triggering conditions are specified in different section and if the reported information is changed, it will trigger SUI transmission. [ZTE]: SUI transmission can be triggered by upper layer, we may not need to trigger SUI transmission from PC5-RRC exchange. [OPPO]: It is for connected mode UE and network already knows the related configuration.

R2-2400511 Discussion and TP on RIL E042 Ericsson discussion Rel-18 NR\_SL\_enh2

* Rejected.

[OPPO]: In the current MAC spec, the proposed information is not used/specified. Do not see a real need for this change unless it is actually used in MAC. [Nokia]: Consider it’s not essential change. We don’t specify all inter-layer interactions. [Apple]: Proposed change is only for RX UE point of view. [LG]: Agree with OPPO/Nokia.

R2-2400512 Discussion and TP on RIL E089 Ericsson discussion Rel-18 NR\_SL\_enh2

* We will clarify what n-th means in the field description and the detailed wordings will be discussed as part of rapporteur CR preparation.

R2-2400513 Discussion and TP on RIL E040 E041 E088 and O309 Ericsson, OPPO discussion Rel-18 NR\_SL\_enh2

* TP is agreed.

R2-2400525 [H623] Discussion on carrier failure caused by RLC AM failure Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

Proposal 1: Add new condition to trigger SL carrier failure as when sidelink RLC entity indicates that the maximum number of retransmissions for a specific carrier has been reached.

* Rejected.

[OPPO]: Disagree with the proposal. There is already keep alive mechanism in higher layer, and we wanted quick detection mechanism. DTX based RLF is a quick detection and we rely on keep alive mechanism for normal case. [Nokia]: RLC based RLF can happen because of L2 configuration error. [Ericsson]: RLC is per logical channel, not per carrier. Disagree with the proposal. [Qualcomm]: Agree with Nokia and Ericsson. RLC has not a view of a carrier.

R2-2400526 [H624] Discussion on the distinction between RLF failure and carrier failure caused by DTX Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

* We will enhance the wording by using the term (SL RLF) that is used in MAC.

[Nokia]: In MAC, we clearly differentiate SL RLF and SL carrier failure. We can use same term here.

R2-2400527 [H643] Discussion on carrier set when PDCP duplication is not used Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

Proposal 1: Add description on the allowed carriers for the RLC bearer when PDCP duplication is not used in TS 38.331, and adopt the corresponding TP1.

* Rejected

[OPPO]: In Uu, there is no flow to carrier mapping and UE relies on network configuration, but in SL, the UE knows flow to carrier mapping, then what should be additional benefit from this change?

Proposal 2: The carrier(s) for PC5-RRC message should be any carrier among the carrier(s) for all QoS flows.

[LG]: SA2 informed the carrier information will be provided for PC5-RRC and PC5-S, and AS will follow it. [Huawei]: Not for PC5-RRC.

* Comeback in CB session (2/29)

[Huawei]; Based on the offline discussion, the updated proposal is that for PC5-RRC, a UE can use any carrier that the upper layer indicates for PC-S messages or the associated QoS flow with the corresponding UC link. [Xiaomi]: Is it only for RRC connected state? [Huawei]: It is for all RRC states. [Ericsson]: Want to have more time to think about that.

* Will be revisited next meeting.

R2-2400528 [H645] Discussion on PDCP duplication configuration via SIB or preconfiguration Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

Proposal 1: For UE in RRC\_IDLE/RRC\_INACTIVE/OOC, if SLRB is configured to use PDCP duplication and the carrier intersection among all QoS flows associated with the SLRB is 1, the UE does not use PDCP duplication for the SLRB (i.e., UE uses legacy RLC bearer configuration to establish RLC bearer and ignore the additional RLC bearer configuration).

Proposal 2: RAN2 to adopt corresponding TP if proposal 1 is agreed.

* Rejected.

[Nokia]: Issue is valid, but we just decided we do nothing to handle no intersection case. [Xiaomi]: Agree with intention, but a condition “TX profile indicates non-backward compatible” is missed. [ZTE]: Share Nokia’s concern. Better to have common approach (do nothing). [Ericsson][IDC]: Agree with Nokia and ZTE.

R2-2400529 [H646] Discussion on PDCP duplication for default SLRB via SIB or preconfiguration Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

Proposal 1: For UE in RRC\_IDLE/RRC\_INACTIVE/OOC, the UE should decide whether to use PDCP duplication based on the PER requirement of QoS flows associated with default SLRB. In details, PDCP duplication is used for the default SLRB in RRC\_ILDE/RRC\_INACTIVE/OOC, when the lowest PER of all QoS flow associated with SLRB is below the PER threshold configured by NW; otherwise, the PDCP duplication is not used for the default SLRB in RRC\_ILDE/RRC\_INACTIVE/OOC.

Proposal 2: RAN2 to adopt TPs for the corresponding specs if proposal 1 is agreed.

* Rejected.

[Ericsson]: Is it reasonable to use PDCP duplication for default SLRB? We have not discussed PER threshold. Disagree with the proposal. [Spreadtrum]: Agree with Ericsson. If PER is very important, it should be also used for normal SLRB. [IDC]: Agree with Ericsson. [Session chair]: What is common understanding on default SLRB if we don’t do anything? [OPPO]: There is no differentiation between default SLRB and normal SLRB, so the UE still follows network configuration whether to apply PDCP duplication or not.

R2-2400151 Discussion on remaining issues on control plane for SL evo ZTE Corporation, Sanechips discussion Rel-18 NR\_SL\_enh2

R2-2401188 On Tx profile RIL X006 Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh2-Core

### 7.15.3 MAC corrections

Corrections for MAC. A single CR with miscellaneous corrections is requested; minor and editorial issues should be coordinated with the CR rapporteur and merged into the miscellaneous CR.

R2-2400962 MAC corrections on Rel-18 NR sidelink evolution LG Electronics France CR Rel-18 38.321 18.0.0 1757 - F NR\_SL\_enh2

* [POST125][102][V2X/SL] MAC CR update (LG)

**Scope:** Approve Rel-18 MAC CR (including R2-2400962 and agreements made RAN2#125)

**Intended outcome:** MAC CR in R2-2401783

**Deadline:** Short email discussion

**Whether IUC and DRX operation is supported when sl-NRPSSCH-EUTRA-ThresRSRP-List is configured?**

* IUC is supported in co-channel coexistence?
* DRX is supported in co-channel coexistence?
* Both IUC and DRX are supported in co-channel coexistence?
* Send LS to RAN1 (R2-2401121, LG)
* Send a LS to RAN1

[OPPO]: It is good to clarify what is specified in MAC in the LS. Also for the third case (both IUC and DRX), it is not supported even in Rel-17 so it is natural not to support them in Rel-18 since we have not spent any specific effort to enable it in Rel-18. [Apple]: Co-existence between IUC and DRX is deprioritized in Rel-17. Not sure if it means not supported. [LG]: This decision is up to RAN1. [Huawei][LG]: “deprioritized” doesn’t mean not supported. [Session chair]: Can we support co-existence IUC and DRX without further specification impact? [OPPO]: In MAC, it is specified if IUC is configured, resource selection is performed w/o consideration of DRX active time. If we want to allow both IUC and DRX, there should be MAC spec impacts. [LG]: OPPO’s observation is correct, but correction may not be big. [OPPO]: It is just one example, we anyway consider intersection between IUC and DRX in the resource selection procedure. [IDC][Ericsson]: Agree with OPPO. [Vivo]: It may be good to see the whole spec changes and impacts to allow both IUC and DRX next meeting. [Xiaomi]: TP to allow IUC and DRX is for Rel-17 or Rel-18 issue? [LG]: It is for Rel-17, and further co-existence with co-channel co-existence dependent on RAN1 response. [Ericson]: If we send LS to RAN1, we should explain where we are exactly. [OPPO]: At least we need to ask for the first two cases, for the third case (both IUC and DRX in co-channel coexistence), we should explain what was decided and what’s RAN2 status. [Session chair]: For co-existence between IUC and DRX, we can see the corresponding TP, but if it needs any functional change/modification, we will not support it. [Qualcomm]: We have many kinds of IUC transmission mechanism (e.g. request based or condition based). Think it will not be easy to support both IUC and DRX in all cases.

* Send a LS to RAN1 to ask whether IUC or DRX is supported in co-channel coexistence.
* For both IUC and DRX case, explain what RAN2 agreed and RAN2’s current status (e.g. looking whether it can be supported with simple text changes in MAC spec) or not. RAN2 will not support it if it requires any functional change or modification.
* [POST125][107][V2X/SL] IUC or DRX in co-channel co-existence (Xiaomi)

**Scope:** Prepare LS to RAN1 (including discussion on detailed wordings)

**Intended outcome:** LS in R2-2401796.

**Deadline:** Short email discussion

**Whether eLCP is also applicable to a common or dedicated discovery pool?**

* Yes (R2-2400233, R2-2400232: P5, OPPO)
* No (R2-2400923: P5, Apple)

R2-240233 (P1, P2):

P1: R2 clarify R18 SL-U applies to ProSe use-case, including communication and discovery.

P2: R2 clarify R18 SL-CA applies to V2X use-case, but not for ProSe use-case (including SL Relay).

R2-2400923 (P5):

P5: RAN2 confirm LCP enhancement is not applied when dedicated discovery pool is configured.

[Session chair]: Do we need functional change to support dedicated discovery? [Apple]: Not really. [OPPO]: If no functional change is needed, we don’t need artificial restriction. Want to allow it. [Qualcomm]: Intention is agreeable, but wonders specification impacts, e.g. if we avoid COT sharing or MCST for discovery, it will make spec impact simple. What CAPC will be set for discovery? [OPPO]: All SL SRBs are set to the highest priority and it doesn’t exclude SRB4.

* R18 SL-U applies to ProSe use-case, including communication and discovery.
* R18 SL-CA applies to V2X use-case, but not for ProSe use-case (including SL Relay).
* RAN2 assumes we don’t need functional change to support discovery.

**TX carrier and pool selection order:**

R2-240233 (P3):

P3 (modified): The UE performs the TX carrier selection *procedure* in the following order;

- Step 1. Consider HARQ attributes in carrier filtering.

- Step 2. Select a resource pool for CBR measurement

- Step 3. Select candidate carrier based on measured CBR

- Step 4 (modified). Resource pool selection for grant creation

[Qualcomm]: HARQ attributes is indicated dynamically by SCI, which it will bring frequency TX carrier selection procedure. [Xiaomi]: HARQ attributes should be considered in step 1, it is aligned with the legacy spec and w/o it, it can also bring another TX carrier selection in step 4. [IDC]: Ok with the steps in general. [Vivo]: If HARQ attribute is already considered in step 1, do we need to consider HARQ attribute in step 4? If not, it will change the legacy procedure for pool selection. [OPPO][NEC][Apple]: We already have a note “NOTE 2: The MAC entity expects that PSFCH is always configured by RRC for at least one pool of resources in *sl-TxPoolSelectedNormal* and for the resource pool in *sl-TxPoolExceptional* in case that at least a logical channel configured with *sl-HARQ-FeedbackEnabled* is set to *enabled*.” in legacy MAC spec. If it is applied per carrier in SL CA, we don’t need step 1 and it will make all specification simpler. Then HARQ attribute can be taken into account in step 2.

* Note 2 above will be updated for each carrier in SL CA
* The step 1 is removed. Corresponding current normative text will be removed in MAC.
* HARQ attribute is considered in step 2 with the proposed note in P6, R2-2400232.
* Leave “couple or decoupled between the resource pool used in the step 2 and step 4” to UE implementation
* Detailed wordings can be further discussed as part of rapporteur CR.

**Whether to specify the Step 1 or to leave it to UE implementation?**

R2-2400232 (P6)

P6: Remove the HARQ feedback attributive based pool selection for CBR determination from normative text, but add “taking into account of sl-HARQ-FeedbackEnabled for the sidelink logical channel” into the NOTE.

[Xiaomi]: Current MAC already has done for step 1. Prefer keeping it. [Lenovo][IDC][LG][Qualcomm]: Agree with Xiaomi. [LG]: With the current MAC spec, it may be still helpful to add this note.

* Covered in the previous discussion.

**Pool for CBR measurement and grant creation:**

* Coupled (same pool): R2-2400923: P7 (Apple)
* Decoupled (allow different pool): R2-2400232: P7 (OPPO)

[Apple]: If decoupled, CBR measurement result can be different. Logically, it makes a sense for coupled. [Huawei]: Support decoupled. [Session chair]: What’s the use case of decoupled?

* Covered in the previous discussion.

**How to handle a case that TX carrier selection finds no carrier?**

* Option 1: Leave it to UE implementation (R2-2400152: P4, ZTE)
* Option 2: Declare RLF (R2-2401078: P7, IDC)

[OPPO]: No need to define any new behaviour. Keep alive message can handle the case. Consider the current spec is sufficient. [IDC]: We introduced DTX based RLF in addition to keep alive in order to detect RLF quickly. It is aligned with that principle. [ZTE]: Keep alive message is only applicable to UC. Even when TX carrier selection doesn’t find a carrier, the UE should be still allowed for transmission. [Qualcomm]: Prefer option1 since it is more flexible. For public safety, it is good to still try transmission. [Nokia]: If CBR threshold is not met, wonders if it’s useful to transmit a packet. [Huawei]: Nothing new is needed. [Ericsson]: Agree with Qualcomm. Prefer option 1.

* Option 1 is agreed. No spec impact.

**IUC Format enhancement (to RAN1 decision):**

R2-2400232: P8-9 (OPPO), R2-2400270: P3 (Sharp), R2-2400946 (Apple)

* [AT125][103][V2X/SL] IUC Enhancement (Apple)

**Scope:** Check RAN1 status, discuss and determine IUC Enhancement format, field description (if needed), and need of separate (e)LCID reservation.

**Intended outcome:** Discussion summary in R2-2401784 and TP in R2-2401785

**Deadline:** Comeback in CB session (2/29)

R2-2401784 Summary of Offline -103 on IUC MAC CE in Rel-18 Apple discussion Rel-18 NR\_SL\_enh2

Proposal 1: Both legacy format and new format of IUC MAC CEs are included in R18 spec.

Proposal 2: New LCIDs in SL interface are introduced for new IUC MAC CEs.

Proposal 3: The “number of subchannels” field and LSI in IUC MAC CEs are 4-bit field.

* All proposals are agreed.

R2-2401785 Text Proposal for Offline-103 on IUC MAC CEs in Rel-18 Apple discussion Rel-18 NR\_SL\_enh2

R2-2401795 Text Proposal for Offline-103 on IUC MAC CEs in Rel-18 Apple discussion Rel-18 NR\_SL\_enh2

* TP in R2-2401795 is agreed. MAC CR rapporteur can take care of further editorial correction.

**COT Information determination**

R2-2400152: P10 (ZTE)

P10: RAN2 is suggested to leave it to UE implementation on how to determine COT sharing cast type, COT sharing Additional ID and Remaining COT duration.

* Agreed.

**Number of transmissions for CG SL grant**

R2-2400152: P13 (ZTE)

P13: Add a Note to clarity the number of transmission times of a TB shall not be incremented by 1 in case that LBT failure indication is received from lower layers, as the following TP.

[LG]: It was already discussed. The concern was already addressed in the current MAC. [Nokia][Lenovo]: Agree with LG.

* Will check if the current MAC already addresses this concern.

**SL-U, SL-CA, SL-A2X and SL-PRS coexistence**

R2-2400152 (P8):

P8: RAN2 is suggested to clarify following issues:

* Whether the SL-A2X or SL-PRS can operate on SL unlicensed band or not.
* Whether the SL relay related configuration, A2X related configuration, SL-CA related configuration and/or SL-U related configuration can be applied for a UE at the same time or not.

[Samsung]: In UAV session, it was agreed the UE doesn’t support both SL-A2X and V2X/SL. [Nokia]: In SL relay session, it was discussed whether both SL relay and SL CA are supported and it was concluded not supported. [NEC]: For SL-U and SL CA, it is part of CATT discussion. [OPPO]: Do we need this kind of discussion in the main session? [Qualcomm]: SL-A2X and SL-PRS capability would be defined per UE while SL-U and SL-CA would be defined per band. If we consider all mixed cases, it would be very complicated. [Ericsson]: SL-PRS on SL-U is part of Rel-19 discussion. Prefer not supporting any combination. [Session chair]: Suggest to note the proposal and if continued next meeting, it will be better discussed in the main session.

* Noted.

**Others: online discussion**

* R2-2400258 (P2-1, P2-2, P2-2a, P2-2b, P2-3, P2-3b, P2-4, P2-4b, P3-1b, P3-1c)

Proposal 2-1: In subcaluse 5.15.1, RAN2 agrees the following changes when SL BWP is deactivated:

 Add the operation that MAC shall cancel, if any, triggered Sidelink consistent LBT failure;

 Remove the current description that MAC entity shall stop the sl-lbt-FailureDetectionTimer for all RB sets in the SL BWP, if running

Proposal 2-1a: Adopt the TP in Table A.2.1.

[LG]: Agree with the first bullet. No harm to keep the current timing stop for the second bullet. [OPPO]: We have SL BWP deactivation, which is captured in RAN1 spec. [Lenovo]: Agree with OPPO. [Vivo]: If SL C-LBT failure is cancelled, do we need to specify stopping recovery timer? [Nokia]: No need to define the timer stopping. [OPPO]: If cancelled, can MAC CE report be sent to the gNB? Guess not. Note it is allowed in deactivation case. [Lenovo]: Why we need to allow MAC CE report for the SL BWP that is released? [Xiaomi]: Agree with the first bullet.

* The first change is accepted.

[Xiaomi]: With the first change, should we consider P7 and P8 in R2-2400294? [Nokia]: Want to have more time to think if we need to specify any timer stopping upon SL C-LBT failure cancellation.

* P7 and P8 in R2-2400294 are revisited next meeting.

Proposal 2-2: In subcaluse 5.22.1.5, remove the incorrect description that SR is used to request SL-SCH resources when triggered by SL consistent LBT failure recovery.

Proposal 2-2a: Similar to other SL related MAC CEs, specify that the priority of the Sidelink LBT failure MAC CE is fixed to ‘1’ in 6.1.3.69.

Proposal 2-2b: Adopt the TP in Table A.2.2.

* Proposals 2-2, 2-2a and 2-2b are agreed.

Proposal 2-3: In subcaluse 5.22.1.1, add the missing descriptions on TX carrier (re)selection triggered by DTX based SL RLF as specified in 5.22.1.3.3.

Proposal 2-3b: Adopt the TP in Table A.2.3.

* Noted.

[ZTE]: Proposal is already handled in offline discussion [104]

Proposal 2-4: Remove “SL LBT failure” from LCID value Table 6.2.1-1, and add it alternatively in the eLCID value Table 6.2.1-2b.

Proposal 2-4b: Adopt the TP in Table A.2.4.

* Proposal 2-4 and 2-4b are agreed.

Proposal 3-1b: RAN2 discusses whether a UE supporting/performing both commercial services (e.g. ProSe communication/discovery) and V2X services is supported in Rel-18 NR SL evolution.

Proposal 3-1c: If a UE in Proposal 3-1b is supported, RAN2 discusses how to keep the single-carrier NR SL operation (e.g. pool/resource selection) for the logical channels with only single carrier allowed, if both a non-V2X carrier and other V2X carriers for SL CA are configured for the UE. Take TP in Table A.3.1 into account.

* R2-2401078 (P6), R2-2400515 (P8?)

R2-2401078:

Proposal 6: During TX Carrier (re-)selection, a carrier where HARQ-based sidelink carrier failure was detected for a unicast LCH is excluded from the set of allowable carriers for that LCH. Suggested specification changes are included in the appendix.

[Xiaomi][Nokia]: If HARQ-based SL carrier failure is detected, the carrier is removed to the current specification. [IDC]: It is removed to the peer UE, but it is not removed from TX carrier selection. [Lenovo]: Support the proposal. We cannot leave all correct UE behaviour to UE implementation. [Huawei]: Intention is agreeable, but specifying excluding the carrier in TX carrier selection may not be simple. We may need to consider some high level description. [OPPO]: Carrier set is configured by RRC and if that happens, the RRC will release the concerned carrier, then what’s the use case if the TX UE still consider this carrier in TX carrier selection?

* RRC will capture that the concerned carrier is released in TX UE side (upon HARQ-based sidelink carrier failure).

R2-2400515:

Proposal 8 Adopt the changes captured in clause 4.4 for triggering carrier (re)selection.

* Noted.

[LG]: The current MAC is aligned with LTE. Current MAC is already clear. [Xiaomi]: This section is applied to the resource pool once a carrier was decided. Disagree with the proposal.

**Others: offline discussion**

* [AT125][104][V2X/SL] Others: offline discussion (LG)

**Scope:** Provide MAC CR rapporteur views, discuss and decide proposals from R2-2400152 (P1, P3 and P12), R2-2400258 (P3-2 and P3-2a), R2-2400260, R2-2400270 (P1 and P2), R2-2400294 (P6), R2-2400515 (P2, P3, P4, P5, P6 and P7), R2-2400979, R2-2401125, and R2-2401488. Proposals that are overlapped with online discussion are not discussed. Offline discussion rapporteur can pick up what issues to be discussed f2f offline (e.g. controversial issues, issues that needs f2f offline discussion for understanding each other, etc.) and what issues to be discussed via email (e.g. natural correction/clarification that are very acceptable, proposals that are very not acceptable, etc.).

**Intended outcome:** Discussion summary in R2-2401786 and TP in R2-2401787 (if needed)

**Deadline:** Comeback in CB session (2/29).

R2-2401786 Summary of [AT125][104][V2X/SL] Others offline discussion (LG) LG Electronics France CR Rel-18 38.321 18.0.0 1757 - F NR\_SL\_enh2

Proposal 1 (10/0). Correction of proposal 1 in R2-2400152 is agreed.

Proposal 2 (5/5). Correction of proposal 3 in R2-2400152 is further checked in the POST email discussion.

Proposal 3 (11/0). Correction of proposal 12 in R2-2400152 is agreed.

Proposal 4 (6/0). Correction of issue 1 in R2-2400260 is agreed.

Proposal 5 (11/0). Correction of issue 2 in R2-2400260 is agreed.

Proposal 7 (2/8). Correction of proposal 2 in R2-2400270 is re-discussed in the POST email discussion.

Proposal 8 (1/9). Correction of proposal 6 in R2-2400515 is not agreed.

Proposal 9 (2/8). Correction 1 in R2-2401125 is not agreed.

Proposal 10 (0/9). Correction 2 in R2-2401125 is not agreed.

Proposal 11 (7/2). Addiontial ID related UE procedure based on RAN1 agreement is captured in the MAC specification.

Proposal 12 (9/0). Correction 1 in R2-2401488 is agreed.

Proposal 13 (7/1). Correction 2 in R2-2401488 is re-discussed in the POST email discussion.

Proposal 14 (12/0). Correction 3 in R2-2401488 is agreed.

Proposal 15 (5/1). Correction 4 in R2-2401488 is agreed.

Proposal 16 (10/0). Correction 5 in R2-2401488 is agreed.

\*\*Result of F2F offline discussion\*\*

Proposal 17 (modified). Proposal in R2-2400979 can be revisited.

* All proposals above are agreed.

[NEC]: For P13, do not understand why cannot be agreed now. [OPPO]: Intention is agreeable, but the actual changes are not aligned with the intention, and agreeable. [LG]: Agree with OPPO.

Proposal 6 (5/2/3) (modified). Correction of proposal 1 in R2-2400270 is agreed

* Comeback next meeting

[LG]: Proposal is only for random selection and RAN1 does not specify any candidate resource selection procedure for random selection. [OPPO]: Checked with RAN1 and now ok with the proposal. [Huawei]: Want to have more time to check.

Proposal 18 (modified) Postpone the decision on this proposal so that individual companies can re-check this issue through internal discussions with RAN1 guys and raise this issue again at the next meeting.

* Proposal 18 is agreed.

R2-2400923 Open issues on Rel-18 SL evolution Apple discussion Rel-18 NR\_SL\_enh2

R2-2400152 Discussion on remaining issues on user plane for SL evo ZTE Corporation, Sanechips discussion Rel-18 NR\_SL\_enh2

R2-2400177 Discussion on MAC open issue of SL enhancement China Telecom discussion Rel-18 NR\_SL\_enh2

R2-2400208 Discussion on LCP enhancement in case of discovery pool configuration vivo discussion

R2-2400220 Remaining MAC Open Issue for NR SL with multiple carriers Lenovo discussion Rel-18

R2-2400232 Left issues on MAC OPPO discussion Rel-18 NR\_SL\_enh2

R2-2400258 Essential corrections and left open issues in MAC for Rel-18 NR SL evolution CATT discussion

R2-2400260 Text Proposal for MAC Rel-18 corrections on Sidelink resource allocation and Sidelink LBT failure TOYOTA Info Technology Center, Lenovo discussion

R2-2400270 Corrections on SL-U for MAC layers SHARP Corporation discussion Rel-18

R2-2400294 Correction on TS 38.321 for SL Xiaomi discussion

R2-2400301 Issues on TX carrier (re-)selection Spreadtrum Communications discussion Rel-18

R2-2400515 Discussion on MAC issues Ericsson discussion Rel-18 NR\_SL\_enh2

R2-2400523 MAC corrections for SL evolution Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2

R2-2400773 Open issues on 38.321 Nokia, Nokia Shanghai Bell discussion Rel-18 38.321

R2-2400913 Discussion on MAC open issues for R18 SL-Evo LG Electronics France discussion Rel-18 NR\_SL\_enh2

R2-2400946 Discussion on IUC MAC CEs for SL-U Apple discussion Rel-18 NR\_SL\_enh2

R2-2400979 Discussion on enhanced LCP LG Electronics France discussion NR\_SL\_enh2

R2-2401078 Addressing Open Issues on MAC Layer InterDigital discussion Rel-18 NR\_SL\_enh2

R2-2401121 Draft LS on co-channel co-existence LG Electronics LS out Rel-18 NR\_SL\_enh2 To:RAN1

R2-2401125 Corrections for MAC Qualcomm India Pvt Ltd CR Rel-18 38.321 18.0.0 1764 - D NR\_SL\_enh2

R2-2401488 Miscellaneous correction for SL enhancement for TS38.321 NEC CR Rel-18 38.321 18.0.0 1782 - F NR\_SL\_enh2 Late

R2-2400233 Discussion on Use-Case for SL-U and SL-CA OPPO discussion Rel-18 NR\_SL\_enh2

### 7.15.4 Others

Corrections to other specs, e.g. 38.300, 38.304, 38.323, etc.

**TX Profile (R2-2400153: ZTE)**

P1: A UE assumes backward compatible for the given QoS flow if there is no associated TX profile.

* Will be revisited next meeting.

[Nokia]: Consider the other way around (non-backward compatible) if there is no associated TX profile. [Vivo]: Agree with Nokia. [Apple]: We had a LS indicating there is no associated TX profile for Rel-17 SL DRX. We didn’t have any LS for Rel-18 SL CA. [OPPO]: Checked with SA2 and ok with the proposal. [Apple]: Want to have more time to check with SA2.

**38.300 Corrections**

* [AT125][105][V2X/SL] 38.300 Corrections (IDC)

**Scope:** Discuss corrections/changes in R2-2400256, R2-2400292, R2-2400514, R2-2400769, R2-2401076, R2-2401489, and R2-2400524. Note only corrections and clarifications that capture what RAN2 has decided are part of this email discussion.

**Intended outcome:** 38.300 CR in R2-2401788

**Deadline:** Email based offline discussion. Comeback in CB session (2/29).

R2-2401788 Rapporteur Stage 2 Corrections for NR Sidelink Evolution InterDigital CR Rel-18 38.300 18.0.0 0795 1 F NR\_SL\_enh2

* Agreed.

**38.304 Correction**

R2-2400293

* Will be revisited once the pending issue is decided.

[ZTE][CATT]: It is dependent on the pending issue, i.e. whether to configure SL-U carrier and SL CA carriers at the same time, or whether SL-U carrier needs to be included in the extension carrier.

R2-2400153 Discussion on Tx profile for SL CA ZTE Corporation, Sanechips discussion Rel-18 NR\_SL\_enh2

R2-2400256 Essential Corrections on NR SL evolution in Stage 2 Spec CATT discussion

R2-2400292 Correction on TS 38.300 for SL Xiaomi discussion

R2-2400514 Discussion issues for 38.300 Ericsson discussion Rel-18 NR\_SL\_enh2

R2-2400769 Introduction of sidelink coexistense to 38300 Nokia, Nokia Shanghai Bell CR Rel-18 38.300 18.0.0 0791 - F NR\_SL\_enh2

R2-2401076 Rapporteur Stage 2 Corrections for NR Sidelink Evolution InterDigital CR Rel-18 38.300 18.0.0 0795 - F NR\_SL\_enh2

R2-2401489 Miscellaneous correction for SL enhancement for TS38.300 NEC CR Rel-18 38.300 18.0.0 0810 - F NR\_SL\_enh2 Late

R2-2400293 Correction on TS 38.304 for SL Xiaomi discussion

R2-2400524 Misc corrections for SL evolution Huawei, HiSilicon discussion Rel-18 NR\_SL\_enh2