Annex D:
Outgoing liaison statements of TSG RAN WG2 #61bis

final LS Tdoc	title	to	cc	contact	reply to	release	WI	comments
R2-081934	LS on MAC-d flow definition for MAC-ehs	RAN3	-	Alcatel-Lucent	-	REL-7	RANimp-L2DataRates	
R2-081964	LS related to CR SP-080188 on CSG requirements for UTRA/E-UTRA	SA, SA1	SA2, CT1, GERAN	NSN	related to CR SP-080188	REL-8	HomeNB	agreed in email discussion **61b_LTE_A02**
R2-081969	LS on RAN2 status on enhanced uplink for CELL_FACH state in FDD	RAN3	RAN1	Huawei	-	REL-8	RANimp-UplinkEnhState	A reply to this LS from RAN3 arrived already at RAN2 #61bis in R2-081998.
R2-081970	Reply LS to S4-080126 = R2-080671 on CS Voice over HSPA	SA4	-	Qualcomm	S4-080126 = R2-080671 (RAN2 #61)	REL-8	RInImp8-CsHspa	
R2-081971	Reply LS to R3-080434 = R2-081440 on "Changes to the format of TMGi"	RAN3	CT4	Huawei	R3-080434 = R2-081440	REL-6	TEI6	
R2-081974	LS on RAN2 status on UE DRX	RAN3	-	Ericsson	-	REL-8	RANimp-DRX	
R2-082031	Reply LS to GP-080395 = R2-081412 on various aspects related to GERAN to E-UTRAN interworking	GERAN	RAN4	NSN	GP-080395 = R2-081412	REL-8	GELTE	
R2-082032	Reply LS to C1-080780 = R2-081410 on EPS Session management procedure optimizations	CT1	RAN3, CT4	Ericsson	C1-080780 = R2-081410	REL-8	LTE	
R2-082033	Response LS to LS R3-080553 = R2-081426 on RLF Recovery Information over x2	RAN3	-	Nortel	R3-080553 = R2-081426	REL-8	LTE	

final LS Tdoc	title	to	cc	contact	reply to	release	WI	comments
R2-082034	Reply LS to R3-080564 = R2-081427 on Location Reporting procedure	RAN3, SA2	-	NTT	R3-080564 = R2-081427	REL-8	LTE	
R2-082036	Reply LS to S3-080229 = R2-081918 on outstanding NAS messages	SA3	CT1	Ericsson	S3-080229 = R2-081918	REL-8	LTE	Note: Although it is stated "draft LS" on R2-082036 it is the final LS.
R2-082038	Response LS to S3-080226 = R2-081917 on Authentication at RRC Connection Re-establishment	SA3	-	Alcatel-Lucent	S3-080226 = R2-081917	REL-8	LTE	
R2-082039	LS related to R1-081156 = R2-081419 on Transmission of physical layer parameters	RAN1, RAN4	-	Ericsson	R1-081156 = R2-081419	REL-8	LTE	
R2-082040	LS related to R1-075105 = R2-080590 and R1-081160 = R2-081420 on PDCCH for DL data arrival and random access response format	RAN1	-	Qualcomm	R1-075105 = R2-080590 (RAN2 #61), R1-081160 = R2-081420	REL-8	LTE	
R2-082041	Reply LS to R3-080547 = R2-081425 on LTE-cell- and eNB-identification	RAN3, CT1	SA2, CT4	Ericsson	R3-080547 = R2-081425	REL-8	LTE	agreed in email discussion 61b_LTE_A01
R2-082046	Reply LS to R2-081920 = S3-080249 on security aspects on inter-system handover	SA3	-	Alcatel-Lucent	R2-081920 = S3-080249	REL-8	LTE	
R2-082047	LS on NAS–AS interaction for dependent procedures	CT1	-	Alcatel-Lucent	-	REL-8	LTE	
R2-082048	LS on MAC editors notes regarding assumption on L1	RAN1	-	Ericsson	-	REL-8	LTE	under email discussion in 61b_LTE_B13 before RAN2 #62 submission deadline

Summary:

In total 17 outgoing LSs of RAN2 #61bis (including 2 agreed by email after the meeting): 11 related to LTE/E-UTRA and 6 related to UTRA.

Note: One additional LS R2-082048 is still under email discussion.

Annex E:
List of endorsed CRs from TSG RAN WG2 #61bis

Note: No CR numbers were allocated for CRs submitted to TSG RAN WG2 #61bis.
All endorsed CRs of TSG RAN WG2 #61bis have to be resubmitted to TSG RAN WG2 #62 in Kansas City for quick approval.
These endorsed CRs of TSG RAN WG2 #61bis will have to use the CR numbers (indicated in the table below) on their CR cover sheets (revision field has to be set to "-").
Corresponding Tdoc numbers for these CRs have to be requested as usual via the automatic Tdoc numbering tool.

Tdoc	Title	Source	CR number	spec	release	SI/WI
R2-081451	Clarification of the BSR calculation	Ericsson	0002	36.322	REL-8	LTE
R2-081452	Clarification of the BSR calculation	Ericsson	0002	36.323	REL-8	LTE
R2-081460	PDCP minor changes	LG Electronics Inc.	0003	36.323	REL-8	LTE
R2-081470	Removal of Editor's Note on updating of VR(MS) upon expiry of T_reordering	Ericsson	0003	36.322	REL-8	LTE
R2-081495	Clarification on MAX_CID	Ericsson	3278	25.331	REL-4	TEI4
R2-081496	Clarification on MAX_CID	Ericsson	3279	25.331	REL-5	TEI4
R2-081497	Interpretation of the 'Neighbouring cell identity' in MBMS NEIGHBOURING CELL PTM RB INFO	Ericsson	3280 3281 3282	25.331	REL-6, REL-7, REL-8	MBMS-RAN
R2-081498	Clarification on MBMS dispersion	Ericsson	3283 3284 3285	25.331	REL-6, REL-7, REL-8	MBMS-RAN
R2-081499	Minor ASN.1 corrections due errors detected during v780 implementation	Ericsson	3286 3287	25.331	REL-7 REL-8	TEI7
R2-081506	Configurable values for the minimum and maximum RLC PDU size	Ericsson	3288	25.331	REL-8	RANimp-UplinkL2dataRates
R2-081507	HS-SCCH orders for HS-SCCH-less operation	Ericsson	0032	25.308	REL-8	RANimp-CPC
R2-081508	HS-SCCH orders for HS-SCCH-less operation	Ericsson	0400	25.321	REL-8	RANimp-CPC
R2-081518	Removal of MBMS	LG Electronics Inc.	0004	36.323	REL-8	LTE
R2-081562	Introduction of CELL_FACH DRX	Nokia Corporation, Nokia Siemens Networks	0033	25.308	REL-8	RANimp-DRX

Tdoc	Title	Source	CR number	spec	release	SI/WI
R2-081617	Introduction of 64QAM in RRC LCR TDD specification	ZTE, RITT, CATT, TD-TECH, Spreadtrum Communications, Potevio	3289	25.331	REL-8	64QAM for 1.28 Mcps TDD HSDPA
R2-081620	Introduction of 64QAM in UE LCR TDD capability specification	ZTE, RITT, CATT, TD-TECH, Spreadtrum Communications, Potevio	0193	25.306	REL-8	64QAM for 1.28 Mcps TDD HSDPA
R2-081645	Correction on the attribute of Treset in system information	HUAWEI	3290 3291	25.331	REL-7, REL-8	RANimp-EnhState
R2-081646	Editorial correction to reconfigure MAC-ehs reordering queue	HUAWEI	3292 3293	25.331	REL-7, REL-8	RANimp-EnhState
R2-081647	Editorial correction to variable description of CELL_INFO_LIST	HUAWEI	3294 3295	25.331	REL-7, REL-8	TEI7
R2-081648	RLC TM mode allowed when BCCH mapping on HS-DSCH	HUAWEI	0034 0035	25.308	REL-7, REL-8	RANimp-EnhState
R2-081665	Correction to the calcuration of DPCH frame offset for F-DPCH on timing re-initialised hard handover	NTT DoCoMo	3296 3297 3298	25.331	REL-6, REL-7, REL-8	RANimp-RABSE-CodeOptFDD
R2-081681	Removal of STATUS receiving window	LG Electronics Inc.	0004	36.322	REL-8	LTE
R2-081714	Correction on UM model depiction	Samsung	0327 0328	25.322	REL-7, REL-8	TEI7
R2-081717	Clarification on DAR Operation	Samsung	0329 0330	25.322	REL-7, REL-8	TEI7
R2-081738	Correction on the Mapping of TRRI field and MSB/LSB for 1.28 Mcps TDD EUL	CATT	0401 0402	25.321	REL-7, REL-8	LCRTDD-EDCH
R2-081745	Modification of TBS tables and E-TFC selection for LCR TDD	CATT	0014 0015	25.319	REL-7, REL-8	LCRTDD-EDCH
R2-081750	Completion of the mechanism for Scheduling Information transmission on MAC-e PDU alone for 1.28 Mcps TDD in EUL	CATT	0016 0017	25.319	REL-7, REL-8	LCRTDD-EDCH
R2-081751	Completion of the mechanism for Scheduling Information transmission on MAC-e PDU alone for 1.28 Mcps TDD in EUL	CATT	0403 0404	25.321	REL-7, REL-8	LCRTDD-EDCH
R2-081783	CS-HSPA UL Segmentation	Nokia Siemens Networks, Nokia corporation	0331	25.322	REL-8	RInimp8-CsHspa
R2-081818	Handling of TRANSPORT FORMAT COMBINATION CONTROL	Qualcomm Europe	3299	25.331	REL-7	TEI7
R2-081819	Handling of TRANSPORT FORMAT COMBINATION CONTROL	Qualcomm Europe	3300	25.331	REL-8	TEI7

Tdoc	Title	Source	CR number	spec	release	SI/WI
R2-081830	Removal of UTRAN behaviour	LG Electronics Inc.	0332 0333	25.322	REL-7, REL-8	TEI7
R2-081878	Correction to transmitting AM RLC entity	Samsung	0334	25.322	REL-8	RANimp-UplinkL2dataRates
R2-081925	Correction of a spelling error of E-TFC selection	Ericsson	0405	25.321	REL-8	RANimp-UplinkL2dataRates
R2-081935	Change of MAC-d flow definition for MAC-ehs	Alcatel-Lucent	0036	25.308	REL-7	RANimp-L2dataRates
R2-081936	Change of MAC-d flow definition for MAC-ehs	Alcatel-Lucent	0037	25.308	REL-8	RANimp-L2dataRates
R2-081937	Change of MAC-d flow definition for MAC-ehs	Alcatel-Lucent	0406	25.321	REL-7	RANimp-L2dataRates
R2-081938	Change of MAC-d flow definition for MAC-ehs	Alcatel-Lucent	0407	25.321	REL-8	RANimp-L2dataRates
R2-081939	Clarification of method in determine state of a E-TFC for TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	0408 0409	25.321	REL-7, REL-8	LCRTDD-EDCH
R2-081940	Modification of TBS tables and E-TFC selection for LCR TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	0410 0411	25.321	REL-7, REL-8	LCRTDD-EDCH
R2-081941	Completion of the mechanism for Scheduling Information transmission on MAC-e PDU alone for 1.28 Mcps TDD in EUL	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	3301 3302	25.331	REL-7, REL-8	LCRTDD-EDCH
R2-081942	Triggers, transmission and reliability of Scheduling Information for LCR TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	0018 0019	25.319	REL-7, REL-8	LCRTDD-EDCH
R2-081943	Triggers, transmission and reliability of Scheduling Information for LCR TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	0412 0413	25.321	REL-7, REL-8	LCRTDD-EDCH
R2-081944	Counter and timers for Scheduling Inforamtion Reporting of LCR TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	3303 3304	25.331	REL-7, REL-8	LCRTDD-EDCH
R2-081945	Clarification of the definition of PRRI for TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications, IPWireless, Nextwave	0020 0021	25.319	REL-7, REL-8	LCRTDD-EDCH
R2-081946	Clarification of the definition of PRRI for TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications, IPWireless, Nextwave	0414 0415	25.321	REL-7, REL-8	LCRTDD-EDCH
R2-081947	Clarification of the definition of PRRI for TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications, IPWireless, Nextwave	3305 3306	25.331	REL-7, REL-8	LCRTDD-EDCH
R2-081948	Correction and Clarification of E-RUCCH Info for LCR TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	3307 3308	25.331	REL-7, REL-8	LCRTDD-EDCH
R2-081949	Extended power control gap for E-PUCH in LCR TDD	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	3309 3310	25.331	REL-7, REL-8	LCRTDD-EDCH

Tdoc	Title	Source	CR number	spec	release	SI/WI
R2-081950	Release 7 clarification of HARQ power offset selection during multiplexing of multiple MAC-d flows	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	0416	25.321	REL-7	LCRTDD-EDCH
R2-081951	Release 8 clarification of HARQ power offset selection during multiplexing of multiple MAC-d flows	CATT, TDTech, ZTE, RITT, Spreadtrum Communications	0417	25.321	REL-8	LCRTDD-EDCH
R2-081954	Introduction of 64QAM in MAC LCR TDD specification	ZTE, RITT, CATT, TD-TECH, Spreadtrum Communications, Potevio	0418	25.321	REL-8	64QAM for 1.28 Mcps TDD HSDPA
R2-081967	Re-establishment condition for RLC reconfiguration to fixed from flexible PDU size	Ericsson	3311 3312	25.331	REL-7, REL-8	RANimp-L2dataRates
R2-081992	Early Implementation of PPAC	NTT DoCoMo	3313	25.331	REL-8	PPACR
R2-082011	CR to 36.322 on Duplicate detection in UM RLC	LG Electronics Inc.	0005	36.322	REL-8	LTE
R2-082017	CR to 36.322 on Correction to Polling procedure	LG Electronics	0006	36.322	REL-8	LTE
R2-082020	Miscellaneous corrections to TS 36.322	NTT	0007	36.322	REL-8	LTE
R2-082021	CR to 36.322 Small corrections to RLC	Ericsson	0008	36.322	REL-8	LTE
R2-082043	CR for merged 36.323 CRs	LG	0005	36.323	REL-8	LTE
R2-082044	CR to 36.323 regarding lossless handovers	LG	0009	36.322	REL-8	LTE
R2-082049	36.321 CR covering agreements of RAN2 #61bis	Ericsson, Qualcomm	0002	36.321	Rel-8	LTE
R2-082050	36.331 CR covering agreements of RAN2 #61bis	Samsung	0003	36.331	Rel-8	LTE

- 92 endorsed CRs from RAN2 #61bis:
  - 0 CRs for Rel.99
  - 1 CR for Rel.4
  - 1 CR for Rel.5
  - 3 CRs for Rel.6
  - 31 CRs for Rel.7
  - 56 CRs for Rel.8 (42 for UTRA Rel.8 and 14 for E-UTRA/LTE)

Annex F:
Report of LTE user plane session (AI 5.1)

For convenience the summary R2-082026 of the LTE user plane session (agenda item 5.1) is copied into this annex.
Note: The report of this session was already agreed separately under agenda item 7.2.

5.1 User plane

5.1.1 MAC (36.321)

5.1.1.1 Status

Input from rapporteur only. E.g. endorsement of latest overall rapporteur CR covering changes agreed so far, open issue list and potential further rapporteur update proposals.

R2-081799: Report of MAC activitiesMAC Rapporteurs (Qualcomm Europe, Ericsson)
- Etienne announces that Ericsson (Magnus) will be the rapporteur from now on, and Arnaud will be the new editor for MAC.
=> Noted

R2-081801: Comment on MAC specification v6   MAC Rapporteurs (Qualcomm Europe, Ericsson)
=> Noted without presentation

R2-081718: MAC Open Issues list   MAC Rapporteurs (Ericsson, Qualcomm Europe)
- Panasonic wonders how the worksplit between RAN1 and RAN2 is assumed for TB sizes ? RAN1 is specifying the MCS values. Ericsson assumes that this could to a large extend be handled in RAN1. If there are RAN2 aspects they should be identified so that they can be discussed in RAN2. Panasonic assumes that it would be good if RAN1 would get some input on typical MAC PDU sizes.
- Panasonic assumes that the MAC CE prioritisation is still open (only BSR at handover has been agreed).
- NSN is wondering if nothing concerning CQI reporting needs to be specified in MAC ? At least the relation between DRX and CQI/SPS will need to be specified. NSN was thinking about the scheduled CQI reports. Ericsson wonders what aspect is MAC ? NSN assumes this is MAC because it is a scheduled behaviour. Ericsson assumes MAC in the UE would not need to be involved. Panasonic assumes this should be handled in L1.
- Motorola thinks it is not that clear from the MAC spec that we will always have a PHICH configured. It seems to be specified only very implicitly ?
- Motorola assumes that DR04 would be more an system implementation issue. Ericsson is not sure there is no problem : e.g. if the long-DRX is distributed, does that enable a limited « change indication » ? Should show there is a problem before we solve anything.
=> Noted

R2-081719: E-UTRA MAC protocol specification update (CR) MAC Rapportuers (Ericsson, Qualcomm Europe)
=> Agreed as baseline for the future
Note: After RAN2 #61bis R2-081719 was revised in R2-082049 (see email discussion **61b_36.321**).

R2-081720: Clarification of Random Access identities   MAC Rapporteurs (Ericsson, Qualcomm Europe)
- LG wonders if there is a definition of "RAPID" in the spec ?
=> Text proposal is agreed

R2-081721: Correction of dedicated preamble handling in absence of expiry time MAC Rapporteurs (Ericsson, Qualcomm Europe)
=> Text proposal is agreed

R2-081722:   Correction to local-NACK   MAC Rapporteurs (Ericsson, Qualcomm Europe)
            => Text proposal is agreed

R2-081724:   UE behaviour for sub-80-bit grant for RA msg3 MAC Rapporteurs (Ericsson, Qualcomm Europe)
            - Motorola indicates at least for RRC we would not too frequently use this "UE behaviour not specified", but instead describe the mandated network behaviour.
            - Chairman asked why the "first" UL transmission is mentioned ?
            - Could instead of the suggested sentence, indicate in a note in this section "In case an UL transmission is required, the eNB shall not provide a grant smaller than 80 bits in Msg2".
            - Ericsson thinks if the network would give such a grant, it would be good that the UE does not end up in a deadlock.
            - Panasonic assumes that in the current spec, the UE would send padding (UE has to follow the grant).
            => Add a note in this section "In case an UL transmission is required, the eNB should not provide a grant smaller than 80 bits in Msg2".

R2-081725:   Streamlining of the description of UL HARQ   MAC Rapporteurs (Ericsson, Qualcomm Europe)
            - NSN assumes that in some cases where it says retransmission it could also be a new transmission. So the "re-" should be placed in "(re-)". Ericsson assumes the text is correct: the eNB should not schedule a first transmission in a measurement gap.
            - NSN agrees that the current update is in line with the current spec. However we might have to reconsider this for persistent scheduling.
            => Text proposal is agreed

R2-081800:   Correction to Random Access power setting   MAC Rapporteurs (Qualcomm Europe, Ericsson)
            => Text proposal is agreed

5.1.1.2   Dynamic scheduling

Anything left to be clarified/specified?

Redundancy version determination
R2-081529:   RV for non-adaptive retransmissions Nokia Corporation, Nokia Siemens Networks
            - QC wonders whether this proposal the redundancy versions are not incremented during "suspension" ? QC thinks now the redundancy version is also updated in case of suspension, and this was not the situation before.
            - NTT DCM thinks that the proposed behaviour might be better, because otherwise due to a false ACK a misalignment in RV could arise.
            - In Panasonic's assumption after suspension you would only restart after a PDCCH with an explicit RV indication. So there is no risk for misalignment.
            - NTT DCM indicates that if we don't have an implicit rule for the RV, then you cannot adapt the MCS. Panasonic clarifies that you can adapt the MCS and go to RV=0. Ericsson assumes that if this is signalled, it is a new transmission. Panasonic clarifies that there is still the NDI field.
            - Ericsson wonders whether the intention is to indeed not to take the RV signalled for retransmissions into account ? This is indeed a restriction.
            => Noted

R2-081723:   TP on uplink RV handling   MAC Rapporteurs (Ericsson, Qualcomm Europe)
            - Panasonic indicates that the CURRENT_IRV is now an index to the RV. However the PDCCH signals RV itself. So if we receive a grant for a retransmission, we should set the CURRENT_IRV to the index value corresponding to the indicated RV (or similar formulation).
            => Text proposal is agreed with this change

R2-081573:   RV usage for UL HARQ Panasonic
            => Noted

PHICH in measurement gap
R2-081602:   HARQ feedback and Measurement Gap LG Electronics Inc.
            => We agree we need to specify the HARQ behaviour for this case.

R2-081727: UL HARQ handling when P-HICH collides with measurement gap NTT DoCoMo, Inc.
- NSN assumes that in the proposal it is still a "tentative ACK", so suspension. NTT DCM confirms.
- LG supports this proposal.
- Chairman wonders how this works with UL bundling ? NTT DCM sees no specific problems: there is still only 1 ACK/NACK.
- Samsung is a bit worried about the number of options. In general we could assume a NACK when PHICH cannot be received. Samsung would prefer that skipping the UL transmission and skipping the PHICH reception should be handled in a unified way.
- QC assumes it would be better to consider it an ACK.
- NTT DCM wonders what the UE behaviour is for the other case (i.e. UL tx not performed due to measurement, thus no PHICH allocated). So in this case you have to assume a NACK.
- Ericsson wonders how often this will happen ? If this happens frequently we need more retransmissions. Depends on configuration.
=> Proposal is technically endorsed. Will see a text proposal in R2-081991
R2-081991: TP for UL HARQ handling for P-HICH in measurement gap
- Ericsson thinks there is a problem with how to capture this but the section also is updated by other CR's. Rapporteur will try to take care of this (moving/slight revision).
=> Agree on the text proposal

UL Bundling
R2-081446: RAN2 aspects of the solutions for Subframe Bundling   Alcatel-Lucent
- NSN thinks that 2 aspects are missing: how do the bundling proposals fit to TDD and HD ? None of the proposals seems to consider that ? ALU thinks that since all 3 proposals come from RAN1, they should all be feasible.
- Ericsson thinks it would be a bit premature to already discuss HD a lot since we only now introduce it in MAC. Ericsson thinks that at least alternatives 1 and 2 seems no specific problem for HD. Maybe alternative 3 would cause more problems for HD. TDD will need to be considered further for all proposals (e.g. in combination with only allocation 1 UL subframe).
- QC wonders if UL bundling is really required for TDD: if a cell is so big that you need bundling, the UL/DL switching times will be very large. So maybe you should not have bundling.
- CATT thinks UL bundling for TDD is much more complex. So we need more time to consider this. So CATT would like to wait for the conclusion from RAN1 first on TDD.
- Ericsson thinks that for TDD the same coverage problem exists for TDD than for FDD. Based on a first analysis, Ericsson does not see any major consequence for alternative 1 with TDD.
- Ericson assumes that in TDD the UL subframes do not have to be consequtive.
- Ericsson would prefer to have a decision in this meeting, and we will make it for TDD as well.

R2-081465: Evaluation of TTI-Bundling Alternatives Ericsson
- Ericsson values the "used resources" higher than the "latency gain" potentially provided by proposal 2.
- Philips wonders whether there are also simulation result for 3 ? Ericsson has no results.

R2-081768: UL coverage enhancement for VoIP transmission Philips, NXP Semiconductors

Discussion:
- Nokia prefers to have 1 HARQ number bundling for testing purposes. They think this would also be enough to meet the HARQ msg3 performance. For FDD Nokia was thinking about the value 4. (TDD FFS).
- Motorola wonders whether bundling is a static or a semi-static configuration ? Ericsson assumes it is a semi-static configuration configured with RRC. This is also reflected in R2-081326.
- QC thinks that this is an optimisation and would like to keep the #options low, so it would be good to limit to one value.
- Motorola wonders whether the fact that we would limit to 4 HARQ retrans would impact the decision.
- Samsung is happy to do an indicative show of hands.

- Ericsson assumes all alternatives work with 4 HARQ retrans. ALU indicates that for alternative 3 complexity is added with a flexible bundling.

For indication:
- "Alternative 1": [4]
- "Alternative 2": [2]
- "Alternative 3": [3]

- NSN indicates they did not vote because it is to early. NSN would like more time to think about especially the TDD aspect.
- QC wonders if we could agree to limit to a bundle of 4. Ericsson thinks we could wait for the further analysis.
=> Will defer until next meeting; hopefully take a decision at the coming meeting.

R2-081466:   Text Proposal for TTI bundling Ericsson

5.1.1.3   DRX handling

E.g. when are CQI/SRS transmissions to be performed ?

DRX control
R2-081603:   Corrections on DRX LG Electronics Inc.
Proposal 1:
- Put "when configured" at the beginning of the cycled.
- Motorola things this is not strictly required. The procedure text should make this clear, not in the definition section.
=> Not needed (already clear in procedure text)
Proposal 2:
- It was questioned whether we should also add "SR pending time" or UE waiting for UL transmissions. Sunplus thinks it might be easier to define the "active time" as the time when UE is reading PDCCH.
=> Agreed (can revisit if we want to extend it even more); Later overruled by decisions on R2-081879
Proposal 3:
- QC things considering the timer "expired" at receipt of the MAC CE would also solve the problem. So the timer would be "considered expired" when the MAC CE is explained.
- Sunplus asks what happens if the inactivity timer is not running when the MAC CE is received ? Is the DRX short DRX cycle not started ? LG assumes there is little reason to sent the MAC CE when the inactivity timer is not running. Sunplus things that the MAC CE could also be received during on-duration without inactivity timer running.
=> Agreed with this change; later overruled by decisions on R2-081879

R2-081680:   Discussion on DRX cycle   ASUSTeK
=> Noted

R2-081879:   DRX related correction and clarification Sunplus mMobile Inc.
Proposal 1:
- NSN thinks this was discussed in the past but does not remember the reason for not having it. Ericsson thinks if we allow this it is kind of abusing the fact that the UE is in principle only waiting for a retransmission.
- Samsung think it would be simpler to say that the inactivity timer is started whenever a new transmission is received.
- RIM thinks the DRX retransmission timer is never stopped. Sunplus thinks it is stopped when a PDCCH is received.
- Panasonic thinks this was a deliberate choice: the UE already went to a kind of sleep mode but only wants to receive retransmissions.
- Motorola thinks the current behaviour is indeed a bit strange.
- Can we agree that whenever the UE receives a new grant it shall start the inactivity timer ?
- Nokia agrees with Panasonic that the current behaviour is safer. Panasonic has no strong concerns and think it might make sense to always start the inactivity timer. UE has to follow the grant anyway.

=> Might Agree that: whenever the PDCCH indicates a new transmission (DL or UL), the UE starts or restarts the DRX Inactivity timer ?
- Continuation on Thursday: QC support the proposal
- NSN is not convinced about the need. Ericsson does not see a strong need but is fine if there is a majority. Panasonic sees a benefit for the simplification and supports this change. LG is also in favour of the change.
=> Agree that whenever the PDCCH indicates a new transmission (DL or UL), the UE starts or restarts the DRX Inactivity timer (include in QC CR).
Proposal 2:
- Proposal is to read the active time in the definition section as "the time the UE monitors the PDCCH".
- QC support this proposal.
- Ericsson likes the idea of simplification but would like to check the impact
After revisit on Thursday
- QC thinks it cleans up the definition. NSN thinks it would be a good idea.
=> Agree with the change in definition (include in QC CR).
Proposal 3:
- RIM thinks the MAC CE could give the option to go to ether long or short DRX.
- Chairman thought it would be ok to always go to short DRX. Motorola thought it would be more logical to go to a long DRX. Going to short DRX would only save a few ms of monitoring.
- Ericsson thinks that the MAC CE could e.g. be used when you have removed the PUCCH resources, and then bring the UE to the cycle it was in before.
- Samsung assumes that the inactivity timer can be short for VOIP, but for packet service with lower priority, the inactivity timer could be quite long for scheduling flexibility. Samsung thinks it would be nicest to have a simple behaviour.
- QC would like 1 behaviour when the MAC CE is sent. QC's understanding was that we would always go to the long DRX. NSN has no preference on what DRX to go to but it should only be 1. Ericsson thinks the original intend was to stay in the DRX you were.
- Motorola wonder if that was the intention, why not wait for the inactivity timer. Then the UE would anyway have gone to that DRX.
- IDT thinks it would be most logical to start the short DRX Cycle Timer.
- Huawei thinks this MAC CE enabled a quite long Inactivity timer. So Huawei is fine with going to the short cycle.
- There are 3 options:
  1) Always go to short DRX
  2) Always go to long DRX
  3) Go to the "DRX you were in"
- On Thursday, QC reported that 9 companies are in favour of going to short DRX only (if configured). However still some companies would some other behaviour.
- NSN thinks we should not have so much discussion on such a detailed issue. NSN would be happy to follow the majority.
=> Agree that we will go to short DRX if configured.
=> **[CB text proposal with 3 proposals in R2-081997]**

R2-081874: DRX clarification in TDD   CATT, CMCC
Proposal 1
=> Agreed
Proposal 2
- QC wonders if this is a proposal only for TDD ? CATT thinks it could be applicable for FDD and TDD. Samsung sees no big problem to have this for FDD also.
- NSN is fine for TDD, but would like to keep the FDD part as part of the email discussion on RRC MAC parameters.
=> Agree for TDD; FDD FFS.
Proposal 3:
- Chairman asks if proposal 2 is not sufficient ? If the "DRX starts offset" is configured to be a DL subframe, then any subframe x times 10ms away is also always a DL subframe ? So it would be sufficient to mandate that the "DRX Starts Offset" always points to a DL subframe. So this is an implementation issue (eNB configuration).

=> Agree to include in the spec that the "DRX Starts Offset" should always be set to a DL subframe for TDD. CATT is requested to come with an RRC CR for the next meeting to clarify this.

R2-081682: The operation of DRX Short Cycle Timer   ASUSTeK
- Sunplus thinks this is related to proposal 4 from their paper.
=> Can also be discussed in the offline discussion.

R2-081698: Activation of DRXHUAWEI
- QC thinks we should try to stick to the principle to have no activation time in LTE. Huawei wonders how you would do this type of configuration then ? QC thinks it can be left to implementation. Huawei wonders how to achieve a synchronised view.
- RIM sees some benefits of signalling an activation time. IDT thinks this could potentially use any solution that might come out of the email discussion on "synchronised reconfiguration".
- Chairman wonders if there is a real problem ? The UE will try to deliver the RRC response message irrespective of the DRX and then the eNB knows the DRX.
- NSN had the same proposal in the last meeting, but now thinks that it is not needed: the eNB can try all subframes he thinks the UE could be listening in.
- Ericsson thinks that for DRX the eNB could ensure that the patterns are multiples and only assume the longer until the shorter has been confirmed.
- Samsung thinks the desynchronisation is a quite rare case and there are solutions to recover.
=> Noted; No large need is seen

R2-081868: Go to Long Sleep Command for LTE DRX Research In Motion
- Is related to the offline discussion.
- Huawei wonders when one command would be used, and when you would use the short command ? Huawei sees no use for 2 commands since there would be only 1 situation in which you use it. This is also the Ericsson view.
=> Can be considered as part of the offline discussion

PUCCH resources
R2-081533: PUCCH handling during DRX Samsung
Proposal 1:
- NSN thinks if you have big traffic, the on-duration will be longer and you can sent the CQI during on-duration. NSN does not like to reserve PUCCH resources when you are not sure they will be used. NSN thinks today it is clear in the stage-2 that you would only sent it during on duration.
- Ericsson thinks that NSN can still achieve its goal with the Samsung proposal by only configuring CQI resources in the on-duration. So it becomes a configuration issue.
- RIM sees some benefits for the proposal.
- NSN thinks we can still always have the aperiodic ones.
- Samsung thinks there is no perfect solution, and agrees it can be solved with the aperiodic CQI. Which one is better is probably depending on the scenario. If you expect heavy traffic then the active period could be quite long.
- NSN thinks the probability is larger to end up with unused PUCCH resources with this proposed solution. It is true that heavy DL traffic will normally also result in quite some UL traffic.
- NTT DCM would prefer to have the possibility not to totally depend on polling, so would support the proposal. They think the NSN concern can be addressed by only configuring the resources during the on-duration. Panasonic agrees with this.
- NSN is fine as long as the configuration allows the possibility to only configure the PUCCH in on-duration.
=> Agree that CQI is sent during "active time", but it shall be possible to configure this such that it results in only periodic CQI during the on-duration. (So AND function between RRC configuration and the "active time")
=> Samsung will bring a corresponding RRC CR that enables this behaviour for the next meeting
Proposal 2:
- Samsung likes to align UL traffic and SRS but not to make the proposal to complex. RIM thinks it is a waste to transmit SRS also when there is only DL activity. Samsung agrees the

SAMSUNG 1017-0293

solution is not perfect, but we should also consider simplicity. RIM thinks maybe alternative trade-offs between alignment and simplicity are possible.
- LG thinks that UL SRS is also used for UL TA, so also in case of DL activity only this is required.
- Panasonic indicates that currently the active time does not include the PDCCH reading time used for UL retransmission. Is it the intention of Samsung to also include this time. Samsung thinks this can depend on whatever the outcome of the offline discussion is.
=> Can agree to this as a starting point
=> Will see MAC text proposals in R2-081993

R2-081993:   TP for PUCCH resource handling during DRX
- QC thinks there could be better sections to put this. Samsung admits they could not really find a good section and is fine if the rapporteur would move it.
- RIM thinks we could talk about "if a periodical CQI is configured for this TTI" instead of mentioning the PUCCH resource.
- Ericsson thinks we should indicate to L1 to transmit the CQI.
=> Agreed with text proposal but change to "if periodical CQI is configured for this TTI", "if SRS is configured for this TTI" and "indicate to L1 to transmit the CQI"

R2-081866:   Some Details on CQI Transmission during DRX   Research In Motion
- Proposal 2 already covered in previous discussions.
- Proposal 1 proposes one more CQI reporting, i.e. the one just before the on-duration.
- IDT thinks an alternative would be to use the aperiodic immediately at the beginning. RIM would prefer not to rely purely on aperiodic.
- NSN thinks that if we start to try this, why do we even have the aperiodic at all. Panasonic agrees with NSN.
- Motorola thinks functionally this behaviour is already possible (but within the on-duration)
=> No support for proposal 1

R2-081875:   CQI and SRS transmission during DRX in TDD   CATT
- So taken previous agreements into account, the proposal would be that the CQI is transmitted when configured in any UL subframe part of a frame which overlaps with the active time.
- Motorola wonders why in figure 4 you would send the CQI in 2 subsequent UL subframes ? CATT explains that figure 4 only indicates the subframes in which UL CQI could be possible. It still depends on RRC configuration for which UL subframes actually PUCCH resources are configured.
- CATT clarifies that if the on-duration would collide with the start of a radio frame, then no CQI opportunities can be configured before the on-duration.
- QC does not understand the first arrows in figure 4. Why is this UL frame available for CQI transmission ?
Return on Thursday:
- Proposal is still to agree on: "CQI is transmitted when configured in any UL subframe part of a frame which overlaps with the active time."
- Samsung is a bit hesitant. QC agrees that this "looking a radio frames" really adds something.
- We agree that something needs to be done because saying "CQI is transmitted during active time" will not work for HD and TDD.
- Would be good to have a common solution for HD and TDD.
=> Allow one more meeting GJLISTAGENDA

R2-081867:   SRS Transmission Timing during DRX   Research In Motion
Proposal 1:
- NSN wonders if this means linking the SRS to SR ? So what is meant "anticipation" ?
- It was remarked that current agreement on SRS in RAN1 is periodic sending. So how can proposal 1 work ?
- Ericsson wonders if you have to delay the SR, because you first need to send the SRS ?
- NTT DCM also has concerns with this proposal: eNB should be able to know when the UE is going to transmit the SRS so it cannot just be a UE decision.
Proposal 2:

- End time suggested is probably ok since we agreed that CQI would be transmitted during active time.

Proposal 3:
- Motorola wonders how you can have a highly mobile UE and long DRX ? This seems not reasonable.

Proposal 4:
- Implementation issue

=> Contribution is noted

5.1.1.4   QoS

E.g. how to specify the guidelines/constraints/requirements for the UL logical channel prioritisation (including results of email discussion [Ericsson])?

R2-081456:   Report from the email discussion on Logical Channel Prioritisation Requirements for 36.321
Ericsson (Rapporteur)
=> Noted

R2-081887:   Analysis of the requirements for logical channel prioritization   Ericsson
- Figure 1 shows a 16% overhead difference at 196kbps between enforcing it at every TTI or over 2 TTI's.
- QC wonders about Req1&4: don't they conflict ? Which requirement takes precendence ? Ericsson thinks requirement 4 has the highest priority. QC is wondering whether a minimum segment size could be defined so that the UE does not sent a segment of 4 bytes. Ericsson thinks this could be a potential optimisation.
- LG thinks that stage-3 text is normally intending predictable behaviour. But now we seems to allow a lot of UE implementation freedom. So why do we need to define anything in the stage-3 ? E.g. outcome of requirement 1 is not predictable UE behaviour. Ericsson would like to have some requirement on avoiding unnecessary segmentation. Detailed text can be discussed. So e.g. exclude PBR enforcement per TTI.
- IPW is wondering whether "not-strictly enforced" means that it is not testeable ? Do we have to specify it at all in the spec then ? Ericsson assumes indeed that these requirements are not testeable since there is no normative text in the spec.

Proposal 1:
- Ericsson clarifies this is addressing a per-RB requirement
- LG proposes a 0-PBR. Motorola wonders what this means ? LG explains it means that the LCG will not allocate any resources to this RB in the first round.

Requirement 1:
- Samsung agrees that this type of requirement is needed. Ericsson would like to emphasize segmentation avoidance (e.g. no enforcement per TTI is allowed).

Requirement 2:
- IDT wonders how, if it is not testable, we can ensure that starvation is avoided ? Ericsson would like to leave it to UE implementation how to enforce this. (In the email discussion it turned out very difficult to come to a clear requirement).
- Motorola thinks that is a general problem. So we should first focus on formulations.
- It is the proposal not to have proposal 2 & 3 as part of the LCP.
- It was clarified that if the UL grant is higher than the sum of the PBR's for a longer period fo time, there is no reason to limit any RB to the PBR.
- IPW thinks that if we specify it over a longer period, this could be testeable. Ericsson would be fine to see if RAN5 could make a testcase. Ericsson thinks RAN5 could potentially make testcases to check if the UE meets the "guidelines".
- IPW thinks it is better to specify a requirement over a long time. Ericsson indicates that there were already 2 attempts to try to achieve this (tocken bucket & "shall meet the PBR over a certain time"). E.g. on the second approach, companies still commented it could only roughly be met. So then it is probably better to only have a guideline approach.
- QC supports a "guideline approach" for the PBR. Panasonic also supports this guideline approach.
- Huawei would like to see test cases for PBR at some point of time. However this should be possible based on guidelines
- Motorola thinks that if guidelines can be tested by RAN5, then why not do the real work in RAN2. If RAN5 can test something then it is a requirement for the UE not a guideline.

- The alternative would be to have a clear requirement for the PBR enforcement in RAN2. Ericsson is fine with that and would prefer than a solution based on the token bucket.
- Motorola is fine to have guidelines only, but then there should be no RAN5 testcase.
- NSN thinks that if it is a guideline and we don't test it, then there is no value in having it in the spec. NSN is fine with a token bucket approach.
- Ericsson thinks one could motivate that the PBR behaviour is only tested: it would mean that the detailed behaviour and all corner cases do not need to be specified, but still a rough behaviour can be tested. Ericsson thinks that RAN5 could e.g. specified for a RB of 64kbps, then the achieved rate should be between 62 and 66kbps over 1 sec. This seems more a RAN5 issue.

Requirement 4:
- LG thinks that we don't need padding BSR when requirement 4 is agreed.
- Samsung thinks that in some cases it might be better to just include paddig. E.g. if you don't want to segment a VOIP packet. This possibility should be allowed. Ericsson would prefer to treat this as optimisations. However Ericsson is not aware of examples that would motivate exceptions at the moment. QC e.g. wonders for a case of a 4 byte segment. QC is ok to accept it as baseline.

Requirement 5:
- Covered by 1.

Requirement 6:
- Can be discussed based on the QC document.

Agreements:
1) Agree that it should be possible to set an "infinite PBR" per RB. In addition it should be possible to have a 0-bitrate PBR for an RB.
2) We shall have an explicit clear requirement in the specification that prevents excessive segmentation and that results in testable behaviour. Detailed formulation is FFS.
3) Will take a "guideline approach" w.r.t. that the UE should try to provide at least the PBR to a RB over a period of time. This does not exclude the possibility that RAN5 can come up with a test case to test these guidelines.
4) We shall have an explicit clear requirement that if there is data available, the UE shall not include padding.

Will have an email discussion to come to text for 36.321 to try to capture these agreements [EMAIL ERICSSON] (also reflecting option 1 below)

R2-081778: Clarification on UL Logical Channel Prioritization   Qualcomm Europe
- IPW seems to prevent you from using remaining resources for GBR services. This seems true if there is insufficient data for the GBR bearers.
- NSN wonders how you would handle ROHC header size variation ? Does it mean you have to set the GBR to the worst ever case ? QC assumes you would set the PBR a bit higher to have enough margin.
- NEC thinks there is an implication that the UE knows what bearers are GBR and non-GBR. The UE does not know this currently. QC assumes this is known from NAS signalling.
- Ericsson thinks that this duplicates functionality already present in the network, so this is not required. NSN shares this concern. It is probably better to stick to what we have.
=> No support for this proposal: Option 1 will be used as captured in stage-2.

R2-081589: BSR priority   LG Electronics Inc.
- Ericsson wonders whether the cancel mechanism we have already is not sufficient ? LG thinks that the current prioritisation seems to argue against this cancellation. So the intention is the same.
- NTT DCM thinks this is not needed: if all the data can be fit in the TB and then the BSR is cancelled. So the prioritisation is not important anymore.
- Panasonic thinks that the point LG is addressing is when you put in the BSR.
- Ericsson does not like the proposal: it seems to make some assumption on how we will the TB based on the grant. However only the outcome is important.
- LG wonders what does "cancel" mean. Ericsson thinks it would be very strange to replace it with padding. NSN thinks agrees that this clarification is not really needed.

- Panasonic agrees that the only thing that is important is what comes out. So the clarification is not really needed.
- Samsung shares the opinion that the "cancelling" is quite complex and they have a separate contribution.
=> Noted: cancelling should be sufficiently clearly specified already.

5.1.1.5   UL Information for scheduler

E.g. details of BSR calculation, the threshold based reporting (result of email discussion [Huawei]), details of the power headroom reporting,...

BSR calculation

R2-081450:   Text proposal for the BSR calculation   Ericsson
- LG wonders if the PDCP header is considered ? Ericsson clarified that the PDCP header is considered. RLC/MAC headers are not considered.
=> MAC text proposal is agreed

R2-081451:   Clarification of the BSR calculation   Ericsson, CR 36.322, REL-8
=> Last bullet should be "and RLC PDU segments" not "or RLC PDU segments"
- LG wonders if there could be multiple RLC control PDU's or only 1 ? Probably max 1 today but we can leave it like it is for potential future additional control PDU's.
- NSN wonders whether the control PDU would really be buffered ? Ericsson asks when the control PDU would be re-assembled ? LG has a contribution on this. NSN assumes that since the BSR reflects the buffer status after the current MAC PDU has been built, there should be no control PDU left. Can anyway leave it like it is.
- Samsung thinks "that have been negatively acknowledged" is not needed. E.g. also a polling could trigger a retransmission without receiving a negative acknowledgement.
=> Can remove "that have been negatively acknowledged"
=> Technically endorsed with the changes

R2-081452:   Clarification of the BSR calculation   Ericsson, CR 36.323 REL-8
- Samsung thinks the second part is a bit misleading. Probably always a handover happened sometime before. So "has previously received an indication from upper layer that a handover occurred" is almost always true. Ericsson thinks the following part should only be executed when at least one handover has taken place.
- QC remarks that the succesfull delivery could be indicated by the lower layers or the status report. Ericsson thinks this would be ok but not needed because on receipt of a status report the PDU's are already no longer considered for retransmission. LG shares the same concern from QC. It would be better to have a complete description here.
- It was suggested to add "or by receipt of a PDCP status report" (in addition to lower layer indication). However QC thinks that it would be easier to just refer to "PDCP SDU's that require retransmission" since that is already clarified elsewhere. LG would prefer to define it also here.
=> Add "or by receipt of a PDCP status report" (in addition to lower layer indication).
=> In the second part of the description, it is missing that PDU's given to the lower layer after handover should not be counted any more.
- It is clarified that a PDCP SDU can have been processed by PDCP before the handover, but it still remains a PDCP SDU so that it can be reprocessed after handover. IDT thinks this could be clarified.
=> Technically endorsed with the above changes

R2-081627:   SDU discard impact on BSR calculation ZTE
- NSN thinks as long as a PDU is not discarded it can be retransmitted and it should be considered. Ericsson agrees with this comment.
- ZTE thinks it is only a general principle: the text proposal can be rephrased to be more precise.
- ZTE thinks that it is already clear that when the SDU is discarded, then they are no longer retransmitted/counted. However if you would not have the proposed clarification, you will get an UL grant which is unnecessary high (waste of resources).
- Huawei thinks this cannot really work well; you don't know when you get the grant.
- Ericsson thinks that anyway we should not discard that often so there is no reason to optimise this reporting to the last bit.

=> Noted

R2-081628:   Details of BSR calculation   ZTE
- Panasonic clarifies that semi-persistent resources are not limited to a logical channel (per UE). So the proposal does not seem possible.
- NSN thinks that even if we would find a way to remove the persistent allocation from the BSR, still it would probably not be good because the persistent grant could be overwritten
=> Noted (no support)

Threshold based BSR
R2-081856:   Summary of email discussion: Threshold BSR trigger Huawei (rapporteur)
- Ericsson does not see a big use case for this trigger. However if RAN2 really wants to have this trigger, then Ericsson has a view on how it should look. If we continue with this we should first try to agree on a use case for this.
- Huawei agrees that this is not so important for system operation.
=> No threshold based BSR in Rel-8.

R2-081455:   BSR triggers based on buffer level change Ericsson
=> Noted without presentation
R2-081534:   Threshold based BSR trigger   Samsung
=> Noted without presentation

"Pending SR"
R2-081597:   Issues with scheduling request procedure   LG Electronics Inc.
Proposal 1:
- Samsung thinks the proposal is consistent with SR handling.
- Ericsson thinks that based on the Monday procedure, Ericsson assumed an endless RA procedure. So this repeated triggering would not be needed. NSN had the same comment.
=> Not needed based on Monday discussion
Proposal 2:
- Samsung thinks the proposal is technically correct, but it is a corner case. Samsung thinks we could leave this to implementation.
- Chairman asks if it is the common understanding whether the UE is monitoring with 2 RNTI's in this case. This is the LG assumption.
- LG clarifies that depending on which grant the UE decides to respond to, his UL scrambling will be different.
- NSN thinks that the UL-SCH might be larger and thus more important. So it is not clear which way is better.
=> Agree to include a note in the specifications that if the UE receives both a grant on RA-RNTI and on C-RNTI, it is up to UE implementation which one he continues with

R2-081848:   BSR consideration when Contention Resolution failure   ASUSTeK
- Samsung thinks we should address the reliability of the BSR delivery in general, but probably not by specifying an additional trigger. E.g. there is also the case that the BSR is not delivered due to HARQ failure.
- Ericsson thinks with the endless repetition and the buffering in MAC as discussed on Monday, this is not required anymore.
- Asustek that repetition in MAC could lead to an old BSR. Chairman proposes to first discuss the Monday mechanism in more detail. Then we can later see if futher enhancements are needed.
=> Noted

SR avoidance
R2-081468:   Triggering of SR in relation to allocated uplink grants Ericsson
Proposal 1
- LG agrees with the intention of the proposal, but thinks that an alternative is to consider the "SR pending" until UL grant is received up to the actual transmission.
- Motorola thinks this is almost an artefact of the way the MAC spec is written. So instead of writing "if a grant is received for this TTI" to "if a grant has been received". Ericsson does not want to delay an SR e.g. for 20ms if the next persistent grant only comes in 20ms.

- QC indicates that it seems to assume that even though the UE has 3ms processing time, still the UE is able to process it quicker.
- NSN wonders what the gain is by not sending SR. eNB can anyway ignore it because he knows the UE will perform an UL transmission. Motorola thinks that the UE could have lost the PDCCH and then not sending the SR could help.
- Anyway the SR is a dedicated resource.
- Ericsson thinks that the 3ms is only when the UE has to be ready for the UL tx. He will realise this a bit in advance.
- Samsung thinks there might be a benefit of this in case of a SR-RA. However Samsung assumes that this is an optimisation of a corner case.

=> Noted; no support

Proposal 2
- NSN wonders if this is not just a configuration issue. You should be able to avoid this unnecessary triggering if the SR is configured immediately after the semi-persistent UL allocation. NSN admits that you need to know the inter-packet time for this, however you need this knowledge also to do the semi-persistent allocation in the first place.
- Ericsson thinks if you really want to use this type of approach, you would have the semi-persistent allocation non-aligned to the speech packet generation moment from the codec.
- NTT DCM is quite supportive of the proposal. E.g. if we would use speech packet grouping and only allow an SR every 40ms, you would delay other services unacceptably.
- LG supports the Ericsson proposal.
- QC assumes that we always have dedicated SR when there is semi-persistent resources. So we don't have to be afraid of unnecessary SR.
- Philips supports the proposal. Philips wonders how you configure the LCG specific delay ? Ericsson would like to use RRC signalling.
- Chairman asks if this would not cause delay for silence packets and speech burst start. Ericsson clarifies that the prohibit timer is counting back from the next available semi-persistent resource. So there would be no problem in these cases.
- QC wonders if we are not only talking about an optimisation (VOIP can live with 40ms delay, but other service and SRB cannot) ? Ericsson thinks 40ms is just an example. E.g. bundling 3 speech packets results in 60ms.
- QC wonders how often this is really usefull ?
- Motorola sees nothing breaking if this is not in Rel-8. NSN has the same opinion and thinks it is an optimisation that is not required. Samsung speech-bundling is not typical case with semi-persistent resource allocation. So Samsung also thinks this is not essential for Rel-8.

=> Noted (some support, but more lobbying is required)

R2-081598:   BSR for persistent scheduling LG Electronics Inc.
- LG thinks that when the D-SR is not configured, this can be a significant optimisation. QC cannot think of a good reason not to configure SR when you have semi-persistent allocations/talk-spurt type of allocations.
- QC assumes that even if an SR is triggered, the network might ignore it. QC thinks we do not need an optimisation or the case of semi-pers and RA-SR only.
- Samsung thinks we shall configure SR when we have VOIP for transition to talk-spurt.

=> Noted (similar situation as previous document)

R2-081767:   Triggering of Scheduling Request Philips
=> Noted

Other

R2-081574:   Signalling and configuration of CQI reporting   Panasonic
- NSN wonders what the motivation is for the different reporting for the periodic CQI report. NSN assumes that for periodic we would only configure one type. Than if we want another type, we would poll.
- Panasonic indicates that 36.213 already includes multiple CQI types. Panasonic thinks that according to RAN1 it is already possible to configure multiple periodic CQI types. NSN sees no strong need to alternate. NSN would prefer to have an input from RAN1 on this.
- In the NSN opinion, it would be sufficient to configure 1 type for periodic reporting, and 1 type for the triggered CQI.

- Panasonic assumes that even if we have only 1 type, still we could be reporting for different bands (for the band specific CQI report). Then you still need to configure when the different bands are reported.
=> Noted (would be good to have a LS from RAN1 what flexibility is really essential; the simpler the better).

R2-081655:   Additional BSR triggers HUAWEI
- NSN wonders whether this keeps track for every single byte in the buffer whether it was part of a previously reported BSR ? Huawei confirms.
- Ericsson wonders if this is needed. In this case the UE would not report empty buffers. In addition this can be solved by having a periodic trigger ?
- Huawei thinks that the absence of padding could be used as an indication that there might still be data. However the eNB does not know which RB. So the eNB might schedule the UE with the wrong urgency. Huawei agrees that the periodic BSR could solve this but you would have to set the timer quite short.
- NTT DCM has some sympathy for the proposal. Previously NTT DCM proposed the BSR poll bit which could be used for a similar purpose. However when we decided to go for periodic BSR, it was also assumed that these cases are handled by periodic BSR. So we should stick to that assumption now.
- Huawei thinks that in order to use the periodic, you have to set the trigger very short. Ericsson thinks the period does not have to be set very short. And in addition the eNB could always give an UL grant to the UE and find out if it contains lower priority data.
=> Noted

R2-081880:   LCG reconfiguration via MAC CE Sunplus mMobile Inc.
- QC would prefer to use RRC and have the benefits of RLC-AM.
- LG wonders if which case we want to change the LCG grouping ? Sunplus refers to the beginning of section 2. LG assumes that the LCG grouping related to the priorities. If the priorities are stable, also the LCG grouping should be quite stable. Sunplus thinks this might happen during RB SETUP. LG thinks that anyway then you need RRC signalling.
- Panasonic this we have already agreed that logical channels are directly mapped to an LCG. Furthermore, proposals 2 and 3 are implementation issues.
- Ericsson also prefers RRC signalling
=> Noted (will use RRC signalling, should be required infrequently, actual allocation is implementation dependant).

5.1.1.6   Random Access procedure

RACH model (picture). Msg2 details to be agreed. RACH info in HO-complete ? Only one or more than one ramping cycles ? RA-RNTI value allocation,....Details for DL data resuming (e.g. PDCCH format).

RA-RNTI allocation
R2-081673:   RA-RNTI design CATT
- Ericsson is wondering how many simultaneous PRACH's there could be in TDD ? Ericsson understands it can be up to 9. CATT thinks we should align to the RAN1 agreement whatever the number is.
- Samsung wonders why we do not sent the RA-RNTI along with the PRACH configuration ? CATT indicates this would cost broadcast overhead, and it would increase the handover command. Samsung wonders whether this is thus mainly a signalling optimisation. Yes.
- Huawei agrees with CATT that it would be good to avoid sending it when it seems relatively easy.
- Motorola is also fine with an automatic numbering. However Motorola is concerned about limiting the window size to 10 TTI's. CATT thinks the window size can be discussed. CATT assumes 10ms is sufficient.
- QC likes the proposal, and does not think a window larger than 10ms is needed (4ms should already be quite ok; it is related to the asymmetry in UL/DL, but 4 or 5 should be ok).
- Huawei wonders if windows > 10ms are really needed if we also have backoff. Motorola thinks for FDD a 10ms window is enough. However for TDD there might not be so many DL opportunities to sent Msg2. QC is talking about 10 downlink subframes. Motorola thinks that in such a proposal spanning several frames, the proposed solution would not work.

- Samsung still wonders why this is really needed if it is only a signalling optimisation. We can probably optimise in other ways (e.g. only signal number of lowest LSB's). Typically there is only 1-3 RACH's. LG also thinks this is only an optimisation.

Can we assume that a UE accessing PRACH in a cell is aware of all PRACH's in the cell ?

- For FDD, Ericsson assumes that by only signalling 1 PRACH configuration, you will know the complete PRACH configuration
- Motorola assumes that also for TDD a similar table will be created. So the UE would also e.g. be aware of the complete configuration at handover.

Is it sufficient to limit the window to 1 frame, or should it be possible to have windows larger than 1 frame ?

- Samsung assumes 10 subframes is sufficient.
- Motorola assumes that a solution should be able to extend behond 1 frame (> 10 subframes) because of TDD scenario
- CATT thinks that when the number of DL subframes is small in the configuration, also the user density is small. So CATT assumes that in TDD the response can always be handled in 10ms.

=> Noted

R2-081559: RA window and RA-RNTI allocation Qualcomm Europe

- QC assumes 9 is to high for pratical purposes, and assumes it is sufficient to only go up to 4.

Section 2.2:

- So proposal is to have the window start "3 or 4 or 5" (fixed value) after "N" with "N" the end of the PRACH transmission.
- Ericsson thought the LS indicated that the UE does not need to be able to reply before "N+4", however future UE's could reply earlier up to "N+2". Ericsson thinks that for TDD more flexibility might be needed. So uncertain if a hard coded value is sufficient.
- Motorola is fine with coupling the window-start fixed to the minimum processing start. NSN also prefers to fix it to "2" so that it does not need to be changed in the future.

Section 2.3

- Proposal is to signal a window width system information and handover command.
- NTT DCM assumes we are going to define a maximum window value. Then why would we want to set the value shorter than the maximum. QC clarifies it decreases the ramping cycle RTT.
- Huawei wonders if this is really a big gain. QC indicates the gain depends on the PRACH configuration.
- Ericsson assumes we need to configure the window width.

=> Noted

R2-081642: Mapping between RA-RNTI and PRACH resource HUAWEI
=> Noted (same proposal as CATT/QC)

R2-081824: RA-RNTI Allocation Motorola

- Nokia assumes that a 10ms window is sufficient. Nokia assumes 10 DL subframes window size is always sufficient. Motorola clarifies that a window of 10 DL subframes might span many frames in TDD.

R2-081622: Mapping between RA-RNTI and random access slot ZTE

- QC thinks saving 45 out of 64000 RNTI's (compared to the CATT proposal) is not really an issue.
- Ericsson thinks it would be relatively simple to just give a number to the configured RACH occasions.
- Ericsson assumes TDD cells are always SFN synchronised. So we could say that unless the cells are synchronised, a window larger than a frame should not be used.
- Samsung thinks it would be good to also agree for TDD on a max window of 10 subframes (could mean only 2 DL subframes). Anyway the load can be handled by backoff.
- Ericsson thinks it would also depend on the eNB processing delay. So maybe effectively there is only 1 DL subframe.

Agreements:
1) RA window begin is in the 3rd subframe after the PRACH transmission end (fixed value)

> 2) Will indicate the RA response window size in system info/handover command. Granularity is FFS.
> 3) RA window end is set to the subframe occurring RA response window size DL subframes after RA window begin
> 4) We will use an automatic allocation for the RA-RNTI's
> 5) Any RA-RNTI solution should meet the following constraints:
>   a) can assume the UE is aware of the complete PRACH configuration in a cell
>   b) for FDD there is no need to support windows larger than 10 subframes
>   c) FFS what the maximum window size to be supported for TDD would need to be
> 6) Different options:
>   a) A-RNTI = SubframeNumber + 10PRACHIndex
>   b) RA-RNTI(t)= (t – RA_WINDOW_BEGIN) + RA_WINDOW_SIZE*PRachIndex
>   c) RA-RNTI = RA-RNTI-COUNT + Sn % N + N*Fi (R2-081622)
>
> It is FFS what the maximum parallel number of PRACH's that needs to be supported for TDD shall be (check RAN1 status).

=> QC will provide CR to capture this for the next meeting w.r.t. agreements.
=> Offline discussion [CB Friday Motorola offline]

DL data arrival

R2-081558:   PDCCH for DL data arrival Qualcomm Europe
- Ericsson thinks that for proposals 4,5,6, RAN1 should be consulted.
- QC thinks we so far have no indication from RAN1 on the delay between a DL PDCCH and UL preamble transmission.

Proposal 3,4,5,6:
- QC would prefer we take decisions and inform RAN1. Motorola thinks it would be good to ask RAN1. Ericsson agrees

Proposal 3:
- LG wonders how this now works with the "endless RA". QC assumes that we have not removed the stop condition preable_max_retrans for the DL data arrival case.

Proposal 4:
- LG thinks we should ask how many codepoints are available.

Proposal 6
- NEC thinks we might need some input from RAN1. Ericsson thinks this is ok given the L1 response with 4ms.
- CATT indicates a potential problem: if N+4 and N+5 have PRACH's, and you recieve a PDCCH in N, you cannot use N+5 (if N+1 is no DL frame). So maybe we need to signal the subframe for TDD.

Other questions related to LS:
- NEC questions whether power offset
- QC wonders whether we can agree that we need to specify how soon the UE shall do the first attempt ? Either implicitly or explicitly. Motorola thinks we could just say "the first PRACH occasion after receival". Panasonic thinks it is already indicated in the MAC spec that the UE shall use the first available RACH resource.
=> Noted

R2-081467:   Assignment of dedicated preamble for DL data arrival   Ericsson
=> Noted without presentation
R2-081667:   Signalling on DL data arrival   NEC
=> Noted without presentation

> Will sent an LS to RAN1 indicating our status, and asking them to complete the work w.r.t. the issues addressed in proposal 3,4,5,6 in R2-081558.
> Reflect current agreements:
> a) A dedicated PRACH preamble is optionally indicated by PDCCH in case of DL data arrival
> b) If dedicated preamble is signalled, no end-time needs to be signalled.
> c) If absent, UE must select a Random Access Preamble"
>
> Ask whether the same UE processing is applicable as for UL grant, or whether a different processing time is applicable. (note: previous RAN1 response in R2-080590.

> => LS will be provided in R2-081996 **[CB Friday QC]**

Msg2 encoding

R2-081608: DL Assignment in Msg2 LG Electronics Inc.
- NTT DCM wonders whether there is any need for any UL transmission so that the eNB can be sure the UE received Msg2, before allocating a DL grant ? NTT DCM had considered this solution, but assumes that it would be quite nice to receive an empty BSR in Msg3 in response to Msg2, and then the eNB can start to schedule the UE. So in NTT DCM's understanding, the UL grant field is not totally irrelevant.
- LG thinks it should be a quite rare case that the UE misses the PDCCH. HARQ feedback can be used.
- LG thinks w.r.t. the UL PUCCH allocation for the ACK/NACK for the first DL transmission, the eNB can probably do some smart allocations.
- QC thinks this is a clear optimisation, and not really required. Ericsson agrees with this. Ericsson thinks potentially the UL grant in Msg2 could also be used to trigger a CQI report. QC thinks you can anyway give a very short UL grant and schedule the UE in the next TTI.
=> Noted (no support).

R2-081881: RA Response formatSunplus mMobile Inc.
- Ericsson thinks that there is no big gain of always having a T-CRNTI (nothing breaks). QC shares this opinion.
- No support for introducing the optional presence of T-CRNTI.
=> Noted

C-RNTI encoding in Msg2
- Nokia indicates that they would be fine not to consider any optimisations. Samsung is also ok with this. LG is also fine with this.
- Huawei thinks there are optimisations that are clear improvements and they don't bring that much complexity. However Huawei can agree they are not essential.
- QC thinks potentially we can even extend the format for Rel-8 e.g.when we have different sets of preambles.

R2-081512: On setting the C-RNTI in RACH message two Nokia Corporation, Nokia Siemens Networks
R2-081517: Allocation of a "short" CRNTI in msg2   LG Electronics Inc.
R2-081535: Scheme for C-RNTI Assignment in RACH   Samsung
R2-081652: T-CRNTI assignment in Msg2 HUAWEI
=> All noted without presentation. Agree that no optimisations are needed for the T-CRNTI allocation in Msg2 in Rel-8

Other issues
R2-081908: Grants to Temporary C-RNTI   Ericsson
- Nokia wonders whether this means that the UE should be listening to the T-CRNTI and the C-RNTI all the timer ? Ericsson indicates only from receiving the Msg2 up to Msg4/contention timer expiry.
- Motorola wonders whether the main benefit is to allow adaptive retransmissions for Msg3 ? yes. Currently you cannot do adaptive retransmissions.
- It was questioned why in the middle case of page 3 it is proposed to discard the T-CRNTI ?
=> Agree that in the succesfull case, we should indicate the promotion, not only the discarding.
=> Don't have to repeat "the UE shall" in the last sentence of 5.1.5
- Panasonic wonders whether we also allow "suspension" for Msg3 ? Ericsson assumes normal handling is applicable.
=> Agree to this text proposal with the 2 changes.

R2-081605: Issues on Setting Temporary C-RNTI   LG Electronics Inc.
- The two points are the timing of the T-CRNTI setting, and the remark w.r.t. the scrambling code.
Scrambling of Msg3
- QC thinks scrambling is not so important for Msg3. It is also one more thing that the UE has to do very quickly. Could use CRNTI=0 for scrambling as long as we don't have a CRNTI.

- Ericsson thinks we could also use the RA-RNTI.
- Samsung assumes the simplest approach is we use the UE-specific RNTI for all cases, so T-CRNTI.
- Ericsson has no strong preference.
=> Can check offline what the RAN1 status is.

R2-081606:   Restriction of PDCCH used for Contention Resolution   LG Electronics Inc.
UL data arrival case:
- W.r.t. UL data arrival, Samsung does not understand why the polling case needs to be excluded..
- Samsung agrees that any sensible network would not poll for CQI on UL data arrival, but we do not have to exclude that case.
- QC wonders if the UL data arrival case conflicting with a DL allocation on PDCCH would only occur when there is a misalignment in TA timer ?
- Fujitsu think that the timer of eNB and UE will not be perfectly synchronised, so this case might happen.
- Panasonic does not see a big problem.
- NTT DCM also thinks this is quite a rare case.
- LG points out that if we do not handle this, e.g. an UL BSR might be lost and the UE would be stalling (UE assumes he has delivered BSR).
- Samsung thinks it is not an extremely rare case. If this happens and the BSR was triggered by SRB (highest priority data), there will be no new trigger.
DL data arrival case
- For the DL data case, Samsung assumes it is very unlikely that you would receive an UL grant
- NTT DCM thinks this is a very rare case.
=> Can come back in next meeting

R2-081607:   UL Timing Control related to Contention Resolution   LG Electronics Inc.
Proposal 1:
- It is clarified that proposal 1 is mainly relevant when the TAT was already running. Then if no action is taken, the UE might respond with wrong ACK/NACK timing to DL allocations.
- QC thinks if you had a TAT, you can continue to use the UL TA you have (so ignore the value signalled in Msg2) until contention resolution is resolved.
- Ericsson would prefer to apply the TA-advance, and restore afterwards. However Ericsson is also fine with the QC proposal.
- QC agrees with the principle that a TA received before contention loss should not be applied.
- Samsung agrees QC proposal is fine. LG also agrees with the QC approach and would not like to restore.
- Ericsson thinks that it would be a bit better if the UE would apply the TA from Msg2 (even if the TAT was running), because then we have more likelihood of having a difference in timing between a possible winning and loosing UE. If the UE continues to apply its old timing (which is correct), even though it is the loosing UE, it will anyway interfere more on Msg3. It is true that the reverting is a bit more complex for the UE in this solution.
- Panasonic thinks there is no big difference in UE complexity with the Ericsson proposal.
- Samsung thinks nothing goes wrong if we do not specify the behaviour for the case the TAT is not running.

Potential agreements (Nothing agreed now. Will have to make the final conclusions in the next meeting):
1) If TA was running, then we have 2 possibilities (FFS which one we choose):
   a) you can continue to use the old UL TA (so ignore the value signalled in Msg2) until contention resolution is resolved. Only then you apply the new value and start TAT,
   b) you switch to the new UL TA received in msg2, but if you loose contention you restore the UL TA you had before
2) If TAT is not running, you apply the TA received in msg2 and start TAT. However if you loose contention, the TAT is considered expired (UE consider itself out of sync).

R2-081795:   Overload Indication   Nokia Corporation, Nokia Siemens Networks

Proposal 1:
- Motorola is fine.
- QC thinks that when you don't see anything, you remember what you saw in the past. This seems to be fine. NSN is worried about the case that the UE uses a large backoff and then is the only UE when re-attempting and its preamble is not seen => no Msg2 so large backoff. Ericsson thinks that it is unlikely that there is only 1 UE returning.
- QC thinks the NSN proposal might be a little bit better but not signficiant.
- In Samsung's understanding, this remembering was only for re-attempts after Msg3/4 failure: then you remember the last one received from the window. Samsung agrees that "no backoff" seems to be the logical case. Otherwise we need to send messages to cancel previous backoff.
- ZTE thinks the remembering is logical (overload will not go away quickly).
- LG thinks NSN's proposal is correct.
- LG thinks the text proposal should be improved so that the new sentence is in the loop.
- ZTE thinks if we change to this proposal, the eNB will need to continuously send the backoff in overload conditions.
=> Keep current approach that the UE continues to remember the backoff
Proposal 2:
- Motorola wonders whether it would not be better to use number of RACH opportunities: now it does not scale well with the RACH configurations.
- Samsung is fine. Motorola's comment is valid but should not give much difference in practise.
- Ericsson wonders why a linear range is chosen in the beginning and larger values in the end. NSN assumed that there is an inclination to small values.
=> Proposal is agreed, with the values between brackets

R2-081766: Control of HARQ for RACH message 4 Philips, NXP Semiconductors
- Proposal is in line with made agreements, however already sufficiently captured.
=> Seems covered already

R2-081565: UL grant in Message 2 Qualcomm Europe
- NSN supports the intention. NSN proposes to LS the tdoc to RAN1.
- Ericsson was wondering why no CQI poll bit is included. QC agrees it is a valid question.
=> Will sent an LS to RAN1 asking them to confirm the proposals of this paper (can attach the paper) (include in R2-081996)

R2-081621: Update of backoff parameter ZTE
R2-081694: Efficiency of Dedicated RA PreambleHUAWEI
R2-081516: Correction to RA Power Ramping LG Electronics Inc.
R2-081631: Differentiate access causes in RACH backoff – Further discussionCMCC, ZTE, CATT, Huawei
R2-081672: Valid PRACH resource for dedicated preambleCATT
R2-081716: Msg1/ Msg3 Cancellation Fujitsu
R2-081764: Control of HARQ for RACH message 3 Philips, NXP Semiconductors
R2-081882: Early stop of Random Access Response Monitoring Sunplus mMobile Inc.

5.1.1.7   MAC PDU format

Format for TA-cmd ? Anything remaining ?

TA-CMD format

R2-081536   MAC CE for TA   Samsung, Nokia Corporation, Nokia Siemens Networks
- RIM thinks multipath needs to be considered. Maybe further clarifications can be added in the future.
- QC points out that there are 2 CP lengths. Is 4micros the longest ? Samsung thinks anyway not more than 8 bits are needed. QC thinks we should keep as many as possible bits reserved for future extensions
=> Can add an FFS that we still need to check whether all 8 bits are neededand what the value range is.
- Motorola thinks this has to be a relative change of the timing compared to the timing we used before. So we need a sign.

- NSN thinks we can agree on the proposal, and be aware that there is still some details to be completed.
=> Agreed with FFS indicate above added.

Other

R2-081593: Issue with MAC Padding   LG Electronics Inc.
Proposal 1
- NSN thinks that we have an implicit padding BSR so that we save 1 MAC header. Samsung thinks this is not a logical consequence of previous decisions. We have so far decided that every CE has his own MAC subheader. So even padding BSR should have its own MAC CE header. NSN thinks when the padding BSR is at the end , there is no reason to indicate remaining padding. Samsung thinks in HSUPA you are always aware of the remaining size while you make the header. However this is not so clear yet for LTE. In Samsung's opinion the starting point should be "1 MAC sibheader per MAC CE". Samsung agrees the implicit method is a bit more efficient but it is only a small optimisation. NSN thinks in both HSUPA and here we now the PDU size, so why not apply the implicit padding. LG tends to agree with NSN.
- Panasonic also thinks the padding BSR can be sent implicit. Whether long or short is included depends on the remaining size (so also implicit determination at receiver).
- Samsung thinks there is no so much reason to optimise because we should have padding less often (no fixed size RLC PDU).
- QC sees no need for an exception to the rule that a MAC CE has its own subheader.
- NSN thinks that if we do not have this, you need at least 2 bytes to included the BSR QC argues that without this optimisation we can included if there is 3 bytes remaining. So this does not seem worth an optimisation. Motorola agrees to this. Ericsson also agrees to this.
=> No exception, i.e. the padding BSR will always have its own MAC subheader
Proposal 2:
- NSN thinks it is logical to have the BSR before the padding. QC also thinks it is clear padding is always last. Samsung agrees
=> Padding is always at the end (CR for next meeting to clarify)
Proposal 3
- NSN thinks this is already captured. So we should have the behaviour from figure 4c, but with the padding BSR at the end.
Proposal 4:
- NSN agrees that section 6.1.2 should be corrected and the two-byte paddig case should not be listed there.
=> Need to update section 6.1.2.
=> LG will come with a text proposal for the next meeting to capture these agreements.

R2-081447: Scheduling Information format Alcatel-Lucent
R2-081530: LCID for Scheduling Information Nokia Corporation, Nokia Siemens Networks

5.1.1.8   Semi-persistent scheduling

Details for semi-persistent scheduling: how to identify PDCCH signalling working on semi-persistent allocations (result of email discussion [Ericsson])? How are semi-persistent allocations deactivated ? Details of PDCCH content interpretation ..... If we have settled this in more detail, we should also be able to have a better view on what signalling should be supported by RRC.

Semi-persistent activation/de-activation
R2-081461: Report from the email discussion on the configuration of semipersistent scheduling   Ericsson (Rapporteur)
- Samsung wonders what the "CRC-based approach is": Erisson clarifies this corresponds to the QC proposal on PDCCH scrambling

R2-081575: Configuration of semi-persistent scheduling Panasonic
- Panasonic admits that there reduce the number of MCS codepoints with (29 to 28).
- On RRC you will signal formats and periodicities. Panasonic thinks that the TPC bits could also be used for indicating the periodicity in addition to the TB format.
- ALU wonders what happens if in the future we would want to activate multiple patterns in parallel. This is not foreseen.
- QC has a concern with reducing the MCS functionality from a 5 bit space to a 2 bit space. Panasonic thinks that anyway not much MCS values are foreseen for VOIP.

- Samsung agrees that the TPC bits are not so important for power control.
- Samsung has no strong opinion, but is not 100% sure that 4 codepoints would really be enough e.g. in AMR case with codec rate changes.
- Ericsson is concern about the scheduling restriction that limiting to 4 MCS levels would bring to the scheduler. Panasonic thinks this approach is comparable to UL scheduling in HSUPA.

R2-081827:   Effect of false positive Semi-Persistent grants   Qualcomm Europe
- Nokia agrees with the problem but thinks it can be solved as shown in R2-081962. In this paper the solution proposed is that the semi-persistent is only triggered when the UE has received 2 PDCCH's which both indicate semi-persistent scheduling.
- Samsung agrees that the false alarm probability is not insignificant, but we do not have to over-agerate the consequence. E.g. when you continuously get NACK's UE's will probably have to release the UL resources. Probably only 2 or 3 packets are lost. But anyway, Samsug agrees this needs to be addressed. Samsung thinks there are solutions to increase the reliability. QC thinks that since the UE is looking for ACK/NACK's on a random resource, you will not get NACK's continuously. Panasonic agrees with this.
- Panasonic thinks that their proposal increase reliability because only 1 MCS codepoint results in a SPS activation. So that reduces the false alarm with a factor 32.
- Ericsson assumes there are sufficient solutions to work around this. So Ericsson would prefer to decide for a C-RNTI approach and then work further on that.
- QC thinks there are 3 ways to increase reliability:
    1) C-RNTI approach with repetition
    2) MAC PDU
    3) MCS codepoint value
- Ericsson thinks we can choose the C-RNTI approach and then continue to work further on this.
- Panasonic sees problems with the Nokia approach: e.g. storing of the PDCCH, relation to DRX.

R2-081537:   VoIP support in LTE   Samsung
- Proposes to use separate C-RNTI
=> Noted

Discussion
- QC thinks that the overhead from the Nokia proposal is larger than the MAC PDU (2 PDCCH's compared to 2 MAC PDU's). Also the UE complexity is larger because of the time aspect. In the Nokia proposal, the first PDCCH is used as a dynamic grant so there is no additional overhead. (same overhead as when we have 1 dynamic grant, and then 1 PDCCH for the activation).
- QC points out that in the beginning, the sizes are a bit dynamic. Nokia thinks than anyway you cannot start SPS.
- There seem to be 3 solutions:
    a.   C-RNTI
    b.   MAC PDU
    c.   MCS codepoint value
- IDT has some sympathy for the MAC PDU approach. LG also slightly prefers the MAC PDU approach. NSN thinks that unless we cannot solve the reliability problems with the C-RNTI approach we should not revisit the decision. QC thinks that only now the 16bits decision for the CRC has become clear. At least Ericsson was aware.
- NTT DCM assumes that there is no huge problem when the UE is incorrectly receives an SPS activation. Anyway an SR would be triggered and the eNB would provide a new SPS schedule.
=>   C-RNTI based approach, and will study the reliability issue further

Pattern de-activation
R2-081859:   UL semi-persistent resource deactivation   NTT DoCoMo, Inc.
R2-081828:   Release of semi-persistent resources   Qualcomm Europe
R2-081869:   Resource release considerations for VoIP   Research In Motion
R2-081661:   UL Persistent Resource Release   HUAWEI
- *Explicit in DL : Explicit and Implicit in UL ?*

- *Implicit: based on decoding empty BSR several times ?*

Linking of DL retransmissions
R2-081556: DL Persistent HARQ Id Nortel, Huawei
R2-081599: ReTransmission of Persistent Scheduling   LG Electronics Inc.
R2-081674: Process ID allocation for downlink persistent scheduling CATT
R2-081831: HARQ retransmissions for the DL persistent scheduling Samsung
- *Cycle through reserved processes*
- *Implicit based on response timing*

Pattern in TDD
R2-081872: Simulation for Multiple patterns   CATT
R2-081459: Semi persistent scheduling for TDD Ericsson
R2-081873: Configuration of UL semi-persistent scheduling   CATT, CMCC

Other
R2-081857: UL ACK/NACK resource allocation for DL semi-persistent scheduling NTT DoCoMo, Inc.
R2-081542: Persistent scheduling for DL   Nokia Corporation, Nokia Siemens Networks
R2-081543: Persistent scheduling for UL   Nokia Corporation, Nokia Siemens Networks
R2-081870: Various issues regarding SR channel handling Research In Motion

5.1.1.9   RRC configurable parameters

User plane related parameter aspects should be discussed under this agenda item, RRC aspects can be discussed under 4.4.

5.1.1.10   Other (unicast)

Half duplex
R2-081453: RAN2 Impacts of Half-Duplex FDD Operation in LTE Ericsson
R2-081528: Support of Half Duplex UEs in MAC Nokia Corporation, Nokia Siemens Networks
R2-081845: Analysis of HD-FDD error and TX/RX conflict scenarios Nortel
R2-081898: eNB knowledge of HD-FDD UE capability   Nortel

Flow control
R2-081454: MAC Flow control Ericsson
R2-081777: LTE Flow Control NEC, Panasonic, Qualcomm Europe

Other
R2-081668: Resource handling during persistent scheduling   NEC
R2-081538: on cancelling BSR   Samsung
R2-081539: TP for multiplexing/demultiplexing Samsung
R2-081576: Priority Handling of MAC Control Elements Panasonic
R2-081591: HARQ operation for retransmitted data   LG Electronics Inc.
R2-081609: Miscellaneous corrections on MAC   LG Electronics Inc.
R2-081610: On Notification of Failed Delivery of TB LG Electronics Inc.
R2-081758: Operation of E-UTRAN UL Scheduling and DRX   Philips, NXP Semiconductors

5.1.2   RLC (36.322)

5.1.2.1   Status

Input from rapporteur only. E.g. open issue list, potential rapporteur update proposals

R2-081700: Miscellaneous corrections to TS 36.322 NTT DoCoMo, Inc.
- LG wonders about the change of "TB" to "total size of RC PDU(s) indicated by lower layers". They would like to discuss it later. For section 4 there does not seem to be a problem.
- => Will ask for an update after the discussion on the LG paper in R2-081999
R2-081999: Miscellaneous corrections to TS 36.322 NTT DoCoMo, Inc., CR 36.322 REL-8

- Samsung indicates that 4.2.1.3.2 does not mention control PDU's. NTT DCM thinks this is already a long time like this. Can be handled in the future.
- In section 5.4, a "(" before VR(UH) should be removed.
=> Update in R2-082020 to remove bracket is technically endorsed

Rapporteur will provide open issue list after this meeting.

5.1.2.2   RLC header formats

Where is padding performed in a STATUS PDU (i.e. only at the end of the PDU or at end of each entry to realise byte alignment)? Anything else remaining ?

5.1.2.3   RLC-UM

Anything remaining?

R2-081630:   Duplicate detection in UM RLC   LG Electronics Inc.
- Huawei wonders when this case happens ? When the re-odering timer is set to short ?
- Ericsson thinks the text with "and's" and "or's" could be improved
- NSN thinks some existing condition is not required anymore (can be checked offline)
=> We will see update in R2-082011

R2-082011:   Duplicate detection in UM RLC   LG Electronics Inc.
=> Technically endorsed

R2-081654:   RLC UM reordering HUAWEI
- NTT DCM wonders whether this cannot be solved by selecting a correct RLC SN size ?
- NTT DCM thinks this will not work if you have an application which has infrequent packets. Huawei is focussed on VOIP and a couple of 100ms loss. Huawei thinks you do not necessarily detect an RLF in this condition.
- NSN supports the intention, but the correction in 5.1.2.2.3 is not correct.
- Ericsson is wondering about the reliability of the timer (how can you be sure it is correct) ? Huawei assumes duplicates are generated by HARQ.
- Samsung thinks this only helps when you loose 16 packets in a row. With HARQ this should be really rare. LG agrees with this: really really corner case. Maybe it would be better to perform a re-establihsment.
=> Noted (not much support); not for Rel-8

R2-081679:   Definition of UM window size LG Electronics Inc., CR 36.322 REL-8
- Huawei points out that we call it "re-ordering window", not "receiving window".
=> Second correction with "re-ordering window" will be included in R2-081999.

R2-081759:   Correction on UM Receive Operations   Samsung, CR 36.322 REL-8
=> Withdrawn (all changes covered by other CR's)

5.1.2.4   RLC-AM

Anything remaining?

Large Status PDU handling
R2-081471:   Handling of large RLC status reports Ericsson
R2-081472:   Clarification to the handling of large RLC status reports Ericsson
- NTT DCM is wondering if there is possibility to ensure that the UE does not do alternative 2 ? Ericsson thinks currently alternative 2 is not allowed. Ericsson also does not want to allow it with their CR.
- NSN/Nokia would prefer to have option 3 as mandatory behaviour. Erisson would be ok with this.
- Motorola wonders what the 1st transmission BLER is in the appendix: only 20% of the first transmission are assumed to be succesfull.
- Proposal 3 does not cause data loss and also does not cause unnecessary retransmissions. It is some additional UE complexity.
- Samsung thinks this will happen rarely. If we start to allow this behaviour, we might introduce a lot of open issues. E.g. what should the UE do after having sent this status report ?

Ericsson thinks no additional action is needed by the UE. (can wait for further triggers to trigger a new status report).
- Samsung sees no strong drawback of not having this. Ericsson agrees not much. In 1/10000 of status reports it might not fit, and the status report will not shrink so only when the radio conditions impove (> 50/60kbps) you cannot sent it.
- NTT DCM is fine with allowing option 3 without mandating, but would favour mandating the solution. Motorola shares this opinion, but would like the behaviour mandated.
- Motorola thinks that if we would set the ACK_SN to the same value as the highest NACK_SN, the receiver could detect that there is a shortened report. Ericsson agrees that this might make sense.
- Samsung thinks that with HARQ, in all normal conditions a STATUS report will only include one NACK_SN. Samsung does not understand why this type of optimisation is required for such a rare case.
- LG thought the majority of companies though majority of companies liked option 1, but LG is also fine with option 3. However LG thinks we need to think about the state variables.
=> Mandate shorter report
- What about the ACK SN setting ? Motorola wonders what happens at the next status report ? Ericsson assumes there is a retransmission of the NACKed PDU and thus the receiver window (and thus any future (short) status report) will be updated.
- LG thinks the definition of VR(MS) and ACK_SN
=> Offline activity to update the text in R2-081472 => R2-082012
R2-082012:   Clarification to the handling of large RLC status reports   Ericsson
=> Updated before presentation in R2-082018
R2-082018:   Clarification to the handling of large RLC status reports   Ericsson
- There is a difference in opinion on how the ACK SN should be set: currently the CR reflects the Motorola proposal of setting it to highest NACK_SN. However LG is not happy with this and thinks it should be set as in the Ericsson proposal
- Samsung thinks that anyway the network cannot do much with the knowledge it was a shortened report. E.g. the network cannot trigger another status report. The original Ericsson proposal enabled to report 2 NACK_SN's.
=> Noted: can come back to this issue at the next meeting.

R2-081600:   RLC STATUS PDU transmission LG Electronics Inc.
R2-081666:   Issues on RLC STATUS PDU Samsung
R2-081676:   Correction to Status reporting transmitting   CATT

Other
R2-081588:   Correction to Polling procedure   LG Electronics Inc.
Proposal 1/2:
- In NTT DCM's understanding this is the same as UMTS today, so they are fine.
=> Both proposals are agreed
Proposal 3/4:
- Current assumption is that the STATUS PDU is generated when the UL grant has been received. However this proposal concerns the handling of the poll.
- Ericsson wonders what happens if we have other missing PDU's ?
- NTT DCM wonders whether this also applies to the normal case, i.e. also to PDU's in the retransmission queue. E.g. something is in the retransmission queue but before you can sent it you receive a status report. LG only see an impact on the polling.
- Motorola thinks the intended behaviour is very reasonable, but it seems more an implementation detail than a specification thing; do we need to specify this detail. LG thinks the current spec mandates to retransmit. Motorola think the intention is clear. We should make sure that test spec's that require the retransmission in this case.
- Ericsson thinks it is a really small error case. Even if you would retransmit nothing is broken. So they see no need to specify it.
- Ericsson thinks thinks this is really an optimisation (normally poll timer should not even expire), and the only consequence is an unnecessary retransmission.
Proposal 5:
- So question is whether the poll_Timer setting takes the UL scheduling delay into account or not.
- Ericsson thinks it is better to agree to proposal 5.

=> Agreed

=> We will CR update in R2-082013

R2-082013: Correction to Polling Procedure
- Should be updated with the comments from CATT on VT(S)-1
=> Will see an update in R2-082017

R2-082017: Correction to Polling Procedure
=> Technically endorsed.

R2-081596: Timing of RLC STATUS PDU construction LG Electronics Inc.
- Ericsson sees no problem to delay the creation until transmission. From the network point of view, it would also be preferable not to have old information.
- LG wonders what will be included in the BSR calculation. Ericsson assumes the UE includes the size of the status report as it is at the moment (however later it can be incremented/decremented in size).
- Ericsson thinks this are quite detailed implementation aspects.
- NTT DCM would also prefer it if the status report shows the latest information. However still a BSR should include a status report estimate.
- NTT DCM clarified that there is note that indicates the intended behaviour in 5.2.3.
=> Agree that the final STATUS PDU is only generated when the transmission occasion occurs, but an estimate should be included in earlier BSR's.
=> Offline activity until next meeting to come to a suitable CR (e.g. rephrase note).

R2-081629: RLC AM reordering and status prohibit ZTE
- Main thinking from ZTE is that when we agreed the prohibit timer it was mainly for preventing status reports in case of continuous polling.
- Motorola wonders why have a prohibit timer if you do not honour it ?
=> Not support for this type of optimisation

R2-081675: Correction to polling procedure CATT
- Motorola wonders that if you set the poll bit in a retransmitted RLC_PDU, do you still store the VT(S)-1 ?
- NTT DCM points out that the storing of SN is only if the PDU is equal to VT(S). So maybe further changes are needed.
=> Agree with change; will be included in R2-081999

R2-081681: Removal of STATUS receiving window LG Electronics Inc.
=> CR is technically endorsed.

R2-081761: Correction on Polling and Status Reporting Samsung, CR 36.322 REL-8
- LG comments that "PDU segment" does not need to be added.
- Only remaining change is the moving 2 bullets up of the sentences regarding the setting of the P bit.
=> Remaining change is agreed and shall be included in R2-081999

R2-081762: RLC Reestablishment Interdigital
Proposal 1:
- IDT admits that since they count every segment, in case of excessive segmentation it could result in a lot of counting. However they think this is the simplest method.
- Ericsson wonders what happens if the number of segments would be the same as the max number of retransmissions. Then it would lead to an immediate discarding ? IDT thinks that the expected segmentation should be anticipated when setting the count
- IDT thinks the situation would improve when we would only count the segments entering the retransmission buffer.
=> Will revisit after R2-081810 and related contributions.
Proposal 2:
- When we discussed this earlier, the polling case is already covered by the retransmission trigger.
Proposal 3:
- NTT DCM thinks that although we have this in UMTS, NTT DCM think it might be better to ignore because due to HARQ re-ordering we might receive them out of sequence. Samsung

assumes that the prohibit timer will be set twice the re-ordering timer. So this should not really happen.
- Ericsson agrees with Samsung, but still discarding this status report is safer.
- Samsung thinks this is an indication of the machine going down. Ericsson agrees with this, but Ericsson assumes this is not really needed. Ericsson has another paper analysing the error case.
=> Noted

R2-081862: RLC CR supporting solution to PDCP/RLC problem at lossless DRBs HO in R2-081850 Motorola
- Motorola indicates they prefer to handle this only after PDCP. So might come back.
=> Noted without presentation

5.1.2.5 Segmentation and concatenation

E.g. Guidelines for segmentation/concatenation behaviour.

R2-081587: Correction to RLC PDU size   LG Electronics Inc.
- LG agrees that this type of detail might not be needed. But they think control PDU size, and retransmitted PDU size needs to be considered when determining the new PDU size.
- Ericsson thinks there is no real problem. Ericsson proposes "Payload size".
=> Will accept the NTT DCM reformulation of "TB" in R2-081700

R2-081797: Correction relating to PDU formation description   Nokia Corporation, Nokia Siemens Networks
CR 36.322 REL-8
=> withdrawn (already covered)

5.1.2.6 RRC configurable parameters

Should polling trigger "Every Poll_PDU PDUs" and "Every Poll_Byte bytes" be configurable or be always on? The value range for each parameter needs to be decided. User plane related aspects should be discussed under this agenda item, RRC aspects can be discussed under 4.4.

R2-081532: Timers in RLC Samsung
- Ericsson wonders whether the re-ordering timer value is not more important w.r.t. fine granularity than the other two timers. This especially in the lower range. E.g. so e.g. 0..248 step 8. Motorola thinks 10ms is quite close to the HARQ RTT so probably quite ok.
- Samsung assumes that the lowest and highest values are the most important aspect to consider. Ericsson is fine with the proposed value ranges.
- Steps 5 up to 100ms, and steps of 10ms above for the re-ordering timer.
=> Samsung will bring RRC CR for 4.4.4 for next meeting with agreed value ranges.

5.1.2.7 Other (unicast)

R2-081469: Updating of VR(MS) Ericsson
=> Noted

R2-081470: Removal of Editor's Note on updating of VR(MS) upon expiry of T_reordering   Ericsson, CR 36.322 REL-8
=> Technically endorsed

R2-081473: RLC small open issues Ericsson
Proposal 1 is no longer relevant.
Proposal x: (configurability):
- Samsung thinks this is a valid proposal.
- Motorola wonders if there could be defaults or always explicitly ? Ericsson would be fine with a default. Motorola thinks it might be a function of UE category so maybe 1 default is not so easy.
=> Seems agreeable not to have it on/off (will be reflected in RRC CR for next meeting).
Proposal 2:
=> Agreed
Proposal 3:
=> Agreed
Proposal 4:
=> Agreed

R2-081474:   Small corrections to RLC   Ericsson
                 => Will see update (removing proposal 1) in R2-082015
R2-082015:   Small corrections to RLC   Ericsson, CR 36.322 REL-8
      -      NTT DCM indicates that the sentence in 5.2.3. is placed in the wrong position. Can merge
              with the sentence after the "else"
      -      6.2.2.3 there is an "i" incorrectly left. This change is also already covered in R2-082020 so
              does not need to be made in this CR.
                 => Update will be provided in R2-082021, and it is technically endorsed

R2-081810:   RLC Retransmission CountMotorola
      -      IDT thinks that in the proposed text, you also count the same retransmission twice if you
              receive the NACK twice.
      -      IDT thinks alternatively we could increment the counter at the point of retransmission.
      -      Samsung thinks we should remember that the resegmentation is a quite abnormal case.
              Taking the typical ARQ loop and UE-speed into account, in most cases the resegmented
              PDU would be half the size of the original PDU.
      -      Samsung thinks counting ever single retransmission for a PDU is sufficient.
      -      Motorola thinks this is a simple proposal.
      -      LG would like to only count PDU transmission after the discard timer has expired.
      -      Samsung thinks that anyway we only count PDU's from the moment they are retransmitted.
      -      Ericsson thinks option 3 is not so nice since it considers the retransmission buffer. Ericsson is
              fine with proposal 2.
      -      NSN is fine with 3, but could also agree to 2. Ericsson is fine to 3. Samsung proposes to
              agree on option 2.
                 => Ericsson points out that Max_Retx_Threshold is a configurable parameter. Could make a
                 separate section with configurable parameters.
                 => Motorola wil reformulate it so that there is no action for the first transmission.
                 => It is enough to say "indicate to upper layer"
                 => Add "entity" in Max-Retx-Threshold variable description. Also shorten the description.
                 =>   Agree on option 3, will see CR in R2-082016
R2-082016:   RLC Retransmission CountMotorola
      -      7.x. should not state "constant
      -      Coversheet should only talk about "re-establishment"
      -      There are changes on changes
      -      The change in 7.2. corresponds to a different agreement
      -      Poll_PDU and Poll_Byte should also be in the configurable parameter section
      -      First sentence should add "associated to the AMD PDU"
      -      Second sentence "or a portion of an PDU" should be replaced by "or a portion of the PDU".
      -      LG wonders if we have a definition of "pending retransmission" ? Should be rephrased.
                 => Will see update in R2-082023 [CB]

R2-081475:   Error cases for RLC Ericsson
R2-081590:   [Rel-8] Proposed CR to 36.322 on correction to RLC PDU reassembly   LG Electronics Inc.
R2-081592:   Duplicate Data at Handover   LG Electronics Inc.

5.1.3   PDCP (36.323)

5.1.3.1   Status

Input from rapporteur only. E.g. open issue list, potential rapporteur update proposals

R2-081457:   PDCP Status LG Electronics Inc.
                 => Noted

R2-081458:   PDCP Open issues list LG Electronics Inc.
                 => Noted

R2-081460:   PDCP minor changes   LG Electronics Inc., CR 36.323 REL-8
                 => Technically correct; can include further changes in R2-082022 [CB]

R2-081518: Removal of MBMS   LG Electronics Inc., CR 36.323 REL-8
=> Technically endorsed; can be merged with R2-082022

5.1.3.2   Lossless handovers

During RAN2#61, R2-080968 identified several problems with the currently specified UE behaviour just after handover. An email discussion has take place on how to correct these problems (e.g. also by simplifying current text). We should come to agreed text for this UE behaviour. Including result of email discussion [LG].

Lossless bearer at handover

R2-081462: Summary of the email discussion on Lossless handovers   LG Electronics Inc.
Do we have Duplication window during handovers ?

- Ericsson thinks that this is needed. NSN has the same view.

=>   Agree this is needed.

Decipher/decompress duplicates ?
=> Agree that this is needed
Duplication avoidance window based on last-submitted-RX-SN or on Next-PDCP-RX-SN ?
- Ericsson prefer the last-submited-RX-SN based solution.
- Motorola would prefer to go for the original R2-081341 with some changes
=> We agree to use the text proposal in [4] as a baseline.

On Document number [4]:
- Name of variable "discard window" should be changed to last-submitted-PDCP-RX-SN.

R2-081854: Step 1: DuplicateButNotReorder Window for "restructuring" version   Motorola
- Ericsson thinks the text of 5.1.1.1. is also applicable to RLC-UM. So it should be RLC-UM, and "RLC-AM when the flush timer is not running".
- Section 5.5.1.1: QC wonders why the in-order delivery function needs to be activated before the RLC PDU's are delivered to PDCP ? Motorola thinks it is needed to get the Next_PDCP_SN marker correct. Changes in the first 2 sections of 5.5.1.1. are not considered necessary.
- Ericsson would prefer that either in the definition of in the text it is indicted that the last-submitted-RX-SN is used or RLC-AM bearers, but not in both.
- Ericsson remarks that it is the first time we talk about "security context". Ericsson would prefer to use "security algorithm and parameters".
- In 5.5.1.2.1, the first two bullets starting with "decipher" should start with "decipher the PDCP according to 5.3 using….", and remove "5.3. from the latter bullet".
- Changes to discard window definition are not longer needed if we rename the variable.
=> Merge this document with comments with [4] from R2-081462, in R2-082019 **[CB]**

R2-081855: Step 2: Lossless HO "restructuring" version: Duplicate Elimination Window -> Reorder window
Motorola
- Proposes 2 changes: 1 related to the submitting to higher layers, and 1 to discard window definition.
Proposal 2:
=> Not necessary if we change the name.
Proposal 1:
- So main question here is whether we want to change the "duplication avoidance window" into a "re-ordering window" ?
- Ericsson would prefer to have a re-ordering function in the UE. Motorola also support this. NSN/Nokia also support this.
- LG thinks this is not a good idea. LG thinks that if we go this way, then other changes will be required as proposed in other documents which are quite complex. With the current behaviour, the flush timer can be set quite conservative. So LG would prefer not to re-open this discussion.
- Ericsson agrees that they only want to have it for after the handover. Ericsson would not like to see the other changes that are proposed. Ericsson does not see this expiration of the flush timer as a problem: we can anyway live with a quite large flush timer value.
- ALU would prefer not to have the re-ordering in the UE; it will increase the delay when forwarding is done for "fresh packets" only. NSN thinks this cannot be an important argument because we talk about RLC-AM and lossless handovers.

- Motorola is worried about the fact that an eNB will have to drop out of order forwarded packets at the enB (over X2), or have to re-order them at the eNB.
- LG assumes that we do not want to have the re-ordering on/off by RRC. So if you have an implementation as described by ALU, it will work less optimal. Same is true for a loss over X2.
- QC is fine with a re-ordering window in the UE at the handover. However they would not like to go further.
- NTT DCM would not like to do the re-ordering at the eNB. NTT DCM wonders what happens if the packets are delivered out of order at the UE (no re-ordering in the eNB) ? LG replies tht then the packets are discarded by the UE (by the duplication window).
- NTT DCM is fine with both approaches, but would prefer re-ordering in the UE.
- LG thinks that the eNB will be in a better position to determine a re-ordering timer than the eNB if he wants.
- Samsung thinks we have discussed this quite hard a long time ago.
- LG thinks it is not even an optimisation; it is a matter of taste.

So we have 2 options for handling after handover:
      A) Duplication avoidance window in the UE (current situation) [5]
      B) Re-ordering window in the UE [8]

- Patrick asks whether everybody is fine to describe the delivery to upper layers based on the COUNT value as indicated in this document ? Agreed
=> Change to a re-ordering window. Will also be part of the CR in R2-082019

R2-081850:   Problem with PDCP/RLC interactions at HO of AM DRBs   Motorola
- Motorola sees 3 alternatives
      1) Do nothing
      2) Fix it by flushing RLC up to highest PDCP SN rcvd before handover
      3) Stop in order delivery in RLC-AM
- LG wonders whether there is any risk of HFN sync if the flush timer is set to a very conservative value ? NSN thinks indeed that the longer the flush timer, the less likely this will happen. So setting a larger flush timer should be sufficient.
- ALU agrees that no change is needed: large flush timer should solve this.
- LG thinks that an eNB that is afraid of this could trigger an RLC reset.
=> Noted (no support)

R2-081849:   Incremental fixes to the PDCP spec sections covering lossless DRBs HO   Motorola
R2-081809:   PDCP Handover Handling Motorola
R2-081851:   Down link data reordering at the UE Motorola
R2-081852:   Step 4: Lossless HO "restructuring" version: Reorder 2-windows -> Reorder 1-window Motorola
R2-081853:   Step 5: Restructuring" version: update for unified reordering window Motorola
R2-081858:   Step 3: "Restructuring" version: update for reordering window (restored functionality R2-081341) Motorola
R2-081861:   PDCP CR supporting solution to PDCP/RLC problem at lossless DRBs HO Motorola
R2-081883:   Text for PDCP Open issue 28: delayed delivery   Motorola
      => All noted without presentation

Other
R2-081822:   COUNT persistence for DRB mapped onto RLC AM Qualcomm Europe
- ALU's reading of the RAN3 specification is that it is mandatory, because it is not linked to the forwarding but to the PDCP status preservation. NSN shares this understanding, and think the RAN3 specifications are clear.
=> Noted

Late/Not available
R2-081584:   Proposal for the PDCP handling of AM DRBs during Handover Infineon

5.1.3.3   Other (unicast)

Is anything else remaining ? E.g. do we need to specify something separately for the RRC connection re-establishment case ?

R2-081463: PDCP references to the security algorithms LG Electronics Inc., Alcatel-Lucent
=> Included in R2-082022

R2-081478: Reconfiguration of PDCP profiles at handover LG Electronics Inc., Alcatel-Lucent
- Ericsson supports the principle of this proposal.
- LG thinks we should keep the message as small as possible, so no unnecessary parameters should be included.
=> Principle agreed: LG can submit a contribution for the next meeting in 4.4

R2-081479: Exclusion of invalid PDCP Profiles configurations LG Electronics Inc.
- The accompanying CR for RRC was not agreed.
=> Noted: can be revisited in the next meeting.

R2-081531: In Sequence Delivery at PDCP Nokia Corporation, Nokia Siemens Networks, Samsung
- Motorola would like a stronger term than "duplicate detection", e.g. "duplication discarding"
- LG thinks that at handover, there is a period where we don't expect in-sequence delivery. So should this not be indicated.
=> Can agree to the proposal, but it might need to be enhanced further. Proposals 1 and 2 (with reformulation) are agreed and will be included in R2-082022

R2-081557: Removal of duplicate information LG Electronics Inc.
=> Agreed: can be included in R2-082022

R2-081594: [Rel-8] Proposed CR to 25.323 on Correction to PDCP Status report LG Electronics Inc.
- Colours of 6.2.6.1 can be updated
=> Agreed: can be included in R2-082022

R2-081595: [Rel-8] Proposed CR to 25.323 on Correction to SN management for UM LG Electronics Inc.
- NSN clarifies that for RLC-UM we don't maintain the SN at handover. This is not the intention of the paper.
- "discarded" instead of "discard".
- Some ";" are missing
- In 5.5.2.1 use "re-initialise" instead of "perform maintenance"
- Remove the integrity protection part
- Ericsson proposed to change "re-associate" to "Set". LG clarifies it is the current wording. No change needed.
=> Agreed with changes and included in R2-082022

R2-081704: Correction to PDCP SN space ASUSTeK
=> Withdrawn

R2-081715: Handling of PDCP SDU Discard Timer at HO Fujitsu
- LG thinks that currently we do not reset the PDCP discard timer at handover. So proposal 3 is todays situation
- Fujitsu is fine with alternative 1 or alternative 2.
- ALU thinks that the proposed solutions 1&2 are to complex compared to the gain. So ALU prefers alternative 3 and not transfer anything on X2. Ericsson agrees with this view. Also NSN agrees with this view. So does QC.
=> Noted; no discard timer information considered necessary over X2.

5.1.4 UE capabilities (36.306)

5.1.4.1 Status

Input from rapporteur only. E.g. endorsement of latest overall rapporteur CR covering changes agreed so far, open issue list and potential further rapporteur update proposals

5.1.4.2　L2 buffer size

During RAN2#61 we agreed that as far as RLC is concerned, it indicates buffer size shared between all UL/DL entities. But is some other buffer included in this (e.g. PDCP, HARQ) ? Is it signalled separately or directly linked to the L1 category ? ...

R2-081477:　Definition of UE total L2 buffer size – Ericsson
　　　　　　 => Noted

R2-081540:　L2 UE capability　Samsung
　　　　　　 => Noted

R2-081541:　UE L2 Buffer Capability Nokia Corporation, Nokia Siemens Networks
- Ericsson wonders whether the capabilities would be coupled to the UE category ? Nokia would be ok to couple them.
- Ericsson wonders how we can couple them if we can either set them together of separate them ? Nokia thinks e.g. the high class could be separated. Ericsson wonders which categories are "high class" since category "0" supports 10Mbps. Nokia thinks at least 4 & 5.
- If only 1 approach is possible, Nokia would always like to sent it separately
- Samsung understands the concerns, but assumes that even when we don't report it separately, still there might be no problem: at buffer overflow we can discard based on priority. E.g. lowest priority data in the UL direction.
- Ericsson wonders how the memory is shared if you report the capability separately ? There is no memory sharing.

R2-081811:　Layer 2 Buffer Management　　Motorola
- Motorola wants to make the point that there is no need to report the PDCP and RLC memory sizes separately. However Motorola agrees that there is no large need to report the PDCP memory size.

Discussion:
UL/DL:
- Ericsson would like to receive the values separately, but the understanding was that the memory sharing was very important. Therefore they assume the Nokia proposal is not possible.
- Samsung assumes that the optimal UL/DL mix could depend on the application. Samsung sees benefits for the memory sharing.
- Motorola wonders why the eNB cannot control the situation such (limit DL) that there is always size for the UL ? Nokia would like to ensure that high priority applications have always sufficient buffer in the UL.
- Ericsson agrees with Motorola: network can control the DL so it can ensure that it does not take the whole memory. In addition with grants, the eNB is always somewhat in control of the uplink memory. E.g. setting the byte-count-poll trigger value appropriately.
- Ericsson proposes a common buffer as baseline, and need for separate is FFS.

Agreements:
1) The L2 buffer size reports the RLC buffer memory size
2) The reported RLC buffer size will be the total memory size available for RLC in UL and DL, assuming dynamic sharing for UL and DL.
3) Whether it should also be possible for the UE to report the UL and DL buffer size separately (no sharing for UL and DL) is FFS.
4) Link to UE category
　　　 => Ericsson will bring text proposal for next meeting

5.1.4.3　Other

R2-081476:　L2 UE capability limitations Ericsson
R2-081732:　UE power consumption and processing limitations　　Nokia Corporation, Nokia Siemens Networks

IP Packet Limit:

- Motorola support this concept and thinks it is useful. LG also supports this. Samsung supports this. Infineon support this.
- QC has no strong opinion. Could be usefull to limit the processing in the UE, but it might also limit the throughput from the network and give burden to the scheduler.
- Nokia thinks the limit could be set such that it does not limit the throughput in all normal cases. It just eases UE implementation.
- Ericsson is mainly worried that we would limit ourselves to much: e.g. when there comes a new application with frequent small packets. Motorola thinks there should always be some limit. Ericsson would e.g. like to have 5 times the value in their table 1.
- QC is concerned about hard-coding the values. So it might be better to signal a value like a UE capability. Then a UE vendor would be challenged to support more.
- Ericsson would like to understand what value we would end up with ? E.g. Ericsson would be fine if we assume 30byte packets, then they are fine.
- Nokia could accept a bit higher values than in table 1 from the Ericsson contribution.
- Nokia thinks the concept can be rethought for later releases, maybe even remove the limit then.
- Motorola thinks that signalling values will create more classes. Ericsson agrees.
- Ericsson thinks that we should consider an average packet size that we will use for the calculations for the higher UE categories. However for the lower UE categories we should also consider how many parallel sources there could be.
- Ericsson would prefer to see the numbers before really agreeing.

ATR
- Motorola strongly supports this.
- Ericsson sees no need for the network side. Ericsson would like to hear operator opinions on this.
- NTT DCM thinks the UE's should support the L1 category. Otherwise the UE should just indicate a lower category.
- Nokia thinks that without this, the UE that supports the instantaneous bitrate of category 5 might still need to indicate it is a category 1. Nokia thinks it should be possible to specify values carefully so that they do not limit the eNB scheduler in practical scenarios.
- It was clarified that in CSG cells, the number of users might be very low and we might want to provide a different QOS.
=> Since not many companies seem to support this, Nokia is fine to leave it for now. They will only bring this up again when they get more support offline.

> Agreements:
> 1) We will have a DL limitation in PDCP SDU's per TTI linked to the UE category. The exact numbers are FFS, but they will be higher than indicated in table 1 in R2-081476.

R2-081677: Measurement Parameters in UE capability CATT
- Motorola clarifies that for the UL measurement gaps, the need is not only related to a deployment configuration. It also depends on the UE RX/Tx architecture. E.g. if a fixed DL/UL frequency space is assumed. So Motorola thinks the UL gaps do need to be indicated. QC agrees.
- CATT thinks RAN4 only has the concept of DL measurement gaps. Motorola assumes that we will need completely the same as in UMTS. There have been UMTS terminals that need UL gaps, even if they did not need DL gaps.
- CATT thinks that RAN4 assumes that the UL/DL gaps are always combined. Maybe this could be considered. This can be further discussed with RAN4 delegates.
- Proposal 3 can be considered in the future (signalling optimisation).
=> Noted

5.1.5   Model of the physical layer (36.302)

5.1.5.1   Status

Input from rapporteur only. E.g. open issue list, potential rapporteur update proposals

5.1.5.2 Other

Annex G:
Report of LTE control plane session (AI 5.2)

For convenience the summary R2-082008 of the LTE control plane session (agenda item 5.2) is copied into this annex.
Note: The report of this session was already agreed separately under agenda item 7.1.

5.2 Control plane

5.2.1 RRC (36.331)

5.2.1.1 Status

Input from rapporteur only. E.g. endorsement of latest overall rapporteur CR covering changes agreed so far, open issue list and potential further rapporteur update proposals.

R2-081689 E-mail review summary Rapporteur (Samsung)
  Agreements
  - Issues with proposed resolutions are endorsed
  - Issue list will be updated with status from this meeting by rapporteur

R2-081690 Draft CR on Miscelaneous clarifications/ corrections Rapporteur (Samsung), CR 36.331 REL-8
  Agreements
  - CR endorsed as a baseline for further work (changes from earlier this week need to be reflected in next version)
    Note: After RAn2 #61bis R2-081690 was revised in R2-082050 (see email discussion **61b_36.331**)

R2-081691 E-UTRA RRC main issues Rapporteur (Samsung)
  - Provided for information
  - Noted with presentation

LS from CT1 in R2-08~~41001~~1410

> Agreements:
> - Reply saying our current status is RRC message used to setup RB can carry max 1 NAS message. We are discussing whether to remove the piggybacking in which case 0 NAS messages can be carried.
> - May be updated based on tomorrow's discussion.

5.2.1.2 Connection control

Further details regarding message contents and associated procedures. RRC connection & RB establishment/ release e.g. details of connection release, access class barring & resumption upon re-establishment, use of default configurations,. Intra-LTE mobility, ...

SRB2 usage and configuration - report from email discussion

General handling of RRC proposals this meeting:
  - Proponent will provide text proposal based on v810 by end of meeting
  - Rapporteur will merge text proposals into single RRC CR after meeting.
  - Rapporteur will handle any inconsistencies during the merge

RRC Connection Establishment
R2-081520 Value Range for Access Class Barring Timer Vodafone Ltd

> Agreements
> - Value Range is (4,8,16,32,64,128,256,512) seconds
> - Proposal included directly by rapporteur

R2-081737 Access Class barring enhancements to support PPAC NTT DoCoMo, Inc.
- Clarifed that for the case UE reselects during RRC Connection Establishment for paging to a new TA and performing a TAU then the UE will use the barring status for paging.
- For TAU where in the TAU message the 'follow on' flag is set then the barring status for TAU is used.

Proposal 1: Separate access barring control should be introduced for location registration traffic (Attach/ TAU) to support PPAC.
- Questioned whether proposal 1 is necessary given the multi-TA registration which can distribute peaks in TAU activity due to e.g. trains crossing a TA boundary. Back-off can also help handle RACH overload.
- T-Mob clarified that the PPAC WI is more aimed at controlling load in the CN.
- Some operator support but other with doubts whether necessary
- To be discussed further offline (DoCoMo). Come back Thurs .

Agreements:
- Proposal 2: Access probability factor should have a value range: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1.
- Proposal 4: A value of 0.3 is proposed for the parameter "alpha" to randomise the barring time, making the formula "(0.7+0.6*rand)*barring time."
- Defer preparation of TP until result of discussion on Thurs.

Update on Thursday
- Difficult to agree on proposal. Arguments that multi-TA scheme can reduce the problem, RACH can be used, etc.
- Will be revisited next meeting.
- Agreements on value ranges will be captured by rapporteur.

R2-081695 Access Class Barring HUAWEI
Proposal 1
- In Service indication on UE display is not standardised. So difficult to conclude on necessity of proposal 1. Operator and UE vendors asked to give feedback on requirements for such indication.
- Huawei clarified that the AS-NAS interface is different compared to 3G/2G where NAS knows the barring status before attempting the call. Qualcomm supportive of proposal to give consistency between 3G/2G and LTE.
- Samsung reminded that CT1 where informed of the AS-NAS model for this. We can wait until response from CT1 is received to see is AS-NAS interface is an issue for them.
- DoCoMo feel beneficial for NAS to be aware of expiry of the timer after an initial attempt that fails.
- If CT1 come back with concern then we can look again at this issue.
Proposal 2
- Not necessary as SIM only has 1 AC from 0-9
Proposal 3: The mobile ACB is turned off when entering a cell where barring is not applied
Proposal 3bis: Enhance the present mechanism to allow a hysterisis such that once a mobile is barred then it will be barred on subsequent reselections if the newly selected cell is barred.
- Huawei indicate 3/3bis should be treated together
- Current assumption is that on any reselection (irrespective of AC info in that cell) the barring timer is reset
- DoCoMo consider this to be addressing a rare scenario
- Not agreed.

R2-081785 Connection Establishment and paging cause values Alcatel-Lucent, Alcatel Shanghai Bell
- DoCoMo preferred that paging cause not transparent to eNB so eNB can do discarding to control load. But more of a RAN3 issue.
- ALU indicated that discarding is a RAN2 decision, RAN3 issue is whether any feedback needs to be provided to MME.

Agreements:
- We will define a minimal set of establishment cause values. Details require further discussion. Email discussion to next meeting to progress cause values (Sudeep, ALU)
- Paging causes will not be transparent over S1 and radio(i.e. paging cause values defined in RRC spec). (Aligned with current RAN3 status so no LS needed). Definition of these causes is CT1 issue.

SRB2

R2-081791 Report of email discussion on SRB2 usage Alcatel-Lucent (rapporteur)
- Clarified that spec already says SRB2 only setup after SMC.
- ALU clarified that a UE not supporting 3GPP2 could choose not to implement SRB2 as should never be setup by eNB (for option 1)
- Samsung asked is 3GPP2 messages over SRB1 would be a problem. ALU said PP2 messages are asynchronous with any other RRC activity and so could affect time critical RRC messages. NAS messages in buffer can not be pre-empted by time critical RRC messages.
- Ericsson indicated that the PP2 signalling is a series of transactions between UE and network. ALU indicated PP2 are considering some concatenation of messages.
- Samsung how often does the pre-registration occur. ALU it is rare occurrence.

- Do we need SRB2 to resolve issue with PP2 messages?
  - No necessity in R8 - Nokia, Panasonic
  - Beneficial - Qualcomm, Nortel, Motorola, Ericsson

- Ericsson think SRB2 useful also for NAS signalling carrying SMS messages (pending SA2 discussion)
- Samsung as it is in the spec we should be confident it is not needed before removing it.

- Interdigital concern about optional use by eNB.
- Infineon similar concern about optional. Prefer a split of NAS messages on one SRB , AS on the other

Agreements
- Keep SRB2
- Offline discussion to decide appropriate option (Sudeep). Come back Thursday.

Update on Thursday
- From offline discussion option 2 from paper can be agreed by all companies involved.
- Also all companies to agree to make it mandatory to use.

Agreement
- Option 2 agreed (SRB2 lower priority than SRB1. Once established used by all uplink/downlink Information Transfer messages (carrying 3GPP+3GPP2 NAS messages). Mandatory for SRB2 to be setup after SMC)
- No tdoc allocated for TP - to be prepared for next meeting

SMC
R2-081905 NAS Sequence Number parameter in AS Security Mode Command NEC
- issue address on Tuesday and LS agreed to be sent to SA3
- noted

RRC Connection Re-establishment
R2-081684 RRC connection re-establishment Samsung
Status from earlier in the week
- UE reverts to source cell configuration at re-establishment
- Re-establishment restarts SRB1, 2nd step is RCR to restarts user RBs
- RCR is a delta compared to the source cell configuration, or could contain full configuration

- Qualcomm full configuration is not simple in all cases. For PDCP it is difficult to overwrite with a new configuration.
- Samsung agrees that if lossless is required PDCP can not be overwritten. Otherwise it could be possible (for both handover case and re-establishment)
- Samsung clarified that there was agreement in stage 2 that handover can do delta signalling or full signalling (meaning UE deletes completely existing configuration and replaces with a new one) but currently not reflected in stage 2.
- ALU asked that in the case of full reconfiguration would this imply that buffers are flushed. TI believe buffer content could be kept. Qualcomm stated current agreement is that count values are kept and we don't have the case that they are reset.

Agreements
- RCR in 2nd step also used to re-activate measurements in the UE

> - RCR in 2nd step can use delta signalling or full signalling (meaning UE deletes completely existing configuration and replaces with a new one). Applies to RLC/MAC/measurements. L1 is always full.
> - Whether PDCP configuration can use full signalling needs discussion with UP people
> - At successful RRC connection re-establishment the UE applies same rules to the measurement configuration as in handover case.
> - Come back to PDCP full configuration question on Friday
> - No tdoc allocated for TP

RRC Connection Reconfiguration

R2-081490 Open issues on radio resource configuration Ericsson
R2-081788 Discussion on Bearer identities Alcatel-Lucent, Alcatel Shanghai Bell

Options from offline discussion:
Option 1: (2)
- RB id -> logical channel id fixed in spec (max value 10 all that is needed in R8)
- RB id used in RRC signalling to refer to this RB (e.g. for subsequent reconfigurations)
- additional 'RB id2' sent at RB setup and used as input in ciphering
- RB id could reused in a cell, 'RB id2' could not be reused in a cell (RB id2 max could be larger than 25)

Option 2: (10)
- RB id -> logical channel id signalled in RRC (RB id size could be somewhat larger than 25)
- RB id used in RRC signalling to refer to this RB (e.g. for subsequent reconfigurations)
- RB id used as input in ciphering
- RB id could not reused in a cell

Option 3 (3)
- RB id -> logical channel id fixed in spec (RB id size could be approx 25)
- RB id used in RRC signalling to refer to this RB (e.g. for subsequent reconfigurations)
- RB id used as input in ciphering
- RB id could not reused in a cell

- Qualcomm asked is intra-cell handover is not suitable to solve the problem. Ericsson assume the need for intra-cell handover is rare based on assumption of RB id max in approx 25 (based on logical channel id size)
- ALU with option 2 intra-cell handover would have to be used when limit of 25 is reached.
- Nokia would prefer to reserve logical channel id space for possible use in future releases rather than use them for this issue.

- Can SRB2 be released? Depends on outcome of SRB discussion.

- RB Setup and Reconfigure are combined within ASN.1 signalling.?

> Agreements:
> - For DRBs, flexible RB id to logical channel id mapping signalled in RRC (option 2)
> - For SRBs, fixed mapping to logical channel id
> - DRBs are mapped to EPS bearer ID

R2-081792 Radio Resource Configuration Nokia Corporation, Nokia Siemens Networks
- Clarified that different between add and modify is not the content but the conditions for inclusion of IEs.

Options:
1 - Separate add and modify lists in ASN.1 - restriction captured by the conditions in ASN.1 (6)
2 - add/modify combined in ASN.1 - restrictions captured by procedure text (8)

- Infineon, LG prefer option 1
- Samsung prefer to avoid reflecting too many conditions in ASN.1 (i.e option 2). RIM prefer option 2

Proposal 1 - Default configuration (currently covering RLC configuration) extended to also cover logical channel configuration. Just for DRBs.
- Ericsson don't see the need link RLC and logical channel configuration. How would default for priority be specified, in case of more than 1 DRB?

- To be discussed offline

> Agreements
> - RB add/modify lists combined in ASN.1 - restrictions captured by procedure text
> - List of DRBs to be removed
> - Changes related to bearer configuration plus agreements from R2-081688 to be captured in TP in R2-082000 (Samsung Himke).

R2-081902 Mapping between EPS bearer and Radio Bearer NEC
- Already covered by earlier papers. Noted

R2-081670 Discussion on RB mapping info CATT
- Covered by earlier papers.

R2-081585 Usage of the term 'EPS bearer' in LTE specifications Infineon

> Agreements
> - Alignment to SA2 terminology is required in RRC
> - TP is agreed as a baseline. Detail comments can be provided offline.
> - Release of EPS bearers not handed over from E-UTRA not agreed - separate issue to discuss.

R2-081523 Default configuration for SRB0 and SRB1 at RRC connection establishment Ericsson
- Samsung asked whether we need separate default for RLC and MAC or a single default or SRB config including both RLC+MAC.
- ZTE asked should we have more than one default configuration.
- TI suggested that more than one could be useful for MAC configuration - with one defined in R8.

Proposal 3: Include specified default Logical channel configuration information in TS 36.331. This information can be used for SRB1 during connection establishment
- Should be for any SRB

Proposal 5: Set the default priority for SRB1 to the highest as specified in the TS 36.321.
- Needs to be concluded after conclusion of SRB2 discussion

Proposal 6: Default prioritized bit rate should be set to arbitrary.
- Some clarification in spec that prioritised bit rate is not applicable to SRBs

Proposal 7: If specific value for Maximum Number of UL transmissions is agreed in RAN2, for SRB0 i.e. Msg3 transmission, include a possibility to broadcast the value in SIB2 of system information. Otherwise, use a default value as specified for SRB1.
- UP session discussing whether they need a different value for SRB0 compared to SRB1.
- Wait for outcome of discussion in UP session.

Proposal 9: Confirm that no PDCP information is applicable for SRB establishment.
- This is current status of spec.

> Agreements:
> - Proposal 1: Provide default value for Maximum Number of UL transmissions to be used by the UE for SRB1 in the table in TS 36.331
> - Proposal 2: mac-configuration should be made OP within "RadioResourceConfiguration" IE
> - Add default logical channel configuration that can be used for any SRB.
> - Proposal 4: Logical channel configuration information should be included as OP within "RadioResourceConfiguration" IE to be used during SRB1 configuration in RRC Connection Setup.
> - Some clarification in spec that prioritised bit rate is not applicable to SRBs
> - Proposal 8: SRB0 uses the same default logicalChannelConfiguration parameters as specified for SRB1.
> - To be included in text proposal relating to previous papers (R2-082000)

R2-081813 Key indicator setting at handover Alcatel-Lucent

118

- Infineon asked if single bit is sufficient to avoid potential key desync. Ericsson believe that 1 bit is not enough. Nokia also indicated that KSI is preferred solution - based on feedback from SA3.
- Qualcomm commented may not be just related to intra-eNB handover.
- Interested companies to resolve issue offline and propose way forward at next meeting.

UE capability transfer

R2-081789 Transfer of UE capability Alcatel-Lucent, Alcatel Shanghai Bell
- ALU clarified that the UE capability enquiry/transfer in RRC would be kept. -   Not yet concluded on what other RAT capabilities would be provided - at least the LTE capabilities would be needed.

Proposal 2: It is proposed that the UE capability be included in the NAS Attach request message.
- Qualcomm would like to see more details agreeing
- Ericsson doubtful on the need to add this. See as an optimisation.
- Nokia assume that in case eNB does not have capabilities it will retrieve them after reception of setup over S1 before RB setup on RRC.

=> Not agreed. Proposals 3-5 therefore also don't apply

> Agreements
> - Proposal 1: UE capability must always be retrieved from the UE at Attach and removed from storage at Detach. Agreed assumption on which to based further discussion. May be captured in descriptive text.

RRC Connection Release

R2-081903 Description of action for redirection information in RRC Connection Release Message NEC
- Current status that this IE redirects to a LTE freq or other RAT+frequency.
- DoCoMo clarified that they would like redirection to both freq/RAT and to a specific cell. Redirection to freq/RAT can be done by RRC Connection Release. They think Handover from E-UTRA would be used for redirection to a specific cell.
- Ericsson text is not very clear, 'cell selection' does not point to the quoted section of 36.304
- Ericsson prefer the detailed description in 331.

> Agreements
> - TP needed for both 331 and 304. Behaviour should be in 331 and can be based on text in 331. Text in 304 to be removed and other text changed for consistency.
> - TP for 36.331 in R2-082001
> - CR to 36.304 in R2-082002

Not available/late:
R2-081890 RRC Motorola
R2-081891 RRC Motorola

Moved:
R2-081623 RRC re-establishment procedure ZTE
          - to 4.3.2
R2-081489 Synchronized RRC re-configuration Ericsson
          - to 4.5
R2-081906 Radio Link Failure recovery on non prepared eNB NEC
          - to 4.5

5.2.1.3   Measurements

Details of event triggering conditions, criteria to stop reporting, etc. Need for any non-mobility measurements? CIOs and black lists for inter-RAT measurements (UTRAN, GERAN,CDMA2000). UE speed detection based on handover counting- parameters same as idle, reporting configuration parameters are affected by UE speed, is scaling used (align to IDLE?) ?

Measurement configuration

R2-081492 Bandwidth information used for measurement purposes Ericsson, NTT DoCoMo, Inc
- NEC what bandwidth is used if neighbour cell b/w different from serving cell b/w. Ericsson it would be minimum of all neighbour cells.
- Stage 2 indicates whether scenario of same carrier but neighbour >BW than serving is FFS.
- Nokia for intra-frequency - should it just be a single bit to indicate same or different as serving. Ericsson don't want to limit to same as of different from serving. NEC agree with Ericsson

- Samsung we should signal on per cell case. They believe that is the intention of RAN4. Ericsson don't think that was the intention of RAN4. Nokia lot of overhead to indicate per cell.
- Samsung current proposal is optimised for 6RB but probably not the typical case. Proposal to always include it. Nokia agree - in which case singe bit (same as/different) would be better.
- LG suggest default equal to serving cell. Nokia agree.
-

Agreements
- Proposal agree with default value for intra-freq equal to serving cell.
- For inter-frequency cases the IE is mandatory within the ASN.1 (does not impact RAN4 status)
- TP update in R2-082004.

R2-081481 Reconfiguration of measurements LG Electronics Inc.
- Proposal 4 already captured in spec (editor's note)
- Nokia does proposal 3 need to be captured or should it be left to UE implementation.

Proposal 1: If a reconfiguration message includes a measurement ID which refers to unknown reporting configuration or measurement object, the UE shall ignore it.
- Network error case.
- Clarification that current status is reporting configuration and measurement object can exist without a linkage. Linkage can not exist without reporting config and meas object

Proposal 2: In case a measurement object or a reporting configuration is modified, any associated measurement ID should be kept.
- True for measurements object today.
- What about the reporting configuration? Always overwritten when it is modified.
- DoCoMo think the meas Id can be kept when reporting configuration is modified.
- DoCoMo needs to be clarified in what order actions are processed (removal or addition first)
- Ericsson understanding was that whenever reporting configuration was modified (overwritten) then a new meas id would be needed. Samsung had the same understanding.
- Either approach works but we need to decide.
- DoCoMo can UE distinguish between modify by overwrite and add/remove cells?
- Clarified that current status that modify by overwrite is equivalent to delete and add.
- Discussion offline to progress.

Proposal 3: In order to have an easy UE implementation and specification, we believe that the measurement data should be maintained only for a modified measurement object, but not for a modified reporting configuration.
- NEC it should be specified when left to UE implementation when to keep measurement data but specify when to delete measurement data.
- Motorola think it should all be UE implementation. Samsung agrees. Nokia, TI also
=> Left to UE implementation

Proposal 4: If the modification of a measurement identity implies that a measurement object and/or a reporting configuration become unused, the UE should NOT autonomously delete them/it.
- already in an editor's note in RRC

Proposal 5: use the following text as a baseline for the setup and modification of a measurement.
- noted

R2-081511 Measurements Clarifications Nokia Corporation, Nokia Siemens Networks
Proposal: Reporting quantity the same as measurement quantity
- Motorola and Ericsson concerned that this preclude measuring one and reporting the other or reporting both. Ericsson think it is a necessity for eNB to be able to consider both quantities (i.e. trigger on one and report both)
- Samsung supports proposal.
- DoCoMo think RSRQ is mainly useful for inter-frequency
=> Left open until next meeting for people to discuss involving RAN4

- If this is not agreeable configure reporting quantity per Measurement Configuration IE
- related to above proposal

- There is no CIO in the measurement objects for UTRA, GERAN and CDMA2000
=> Left open until next meeting. Will be closed at next meeting with no CIOs unless proposal to add them.

- Both UTRA and GERAN do not require black lists
- Already treated on Tuesday

Agreements
- Both RSRP and RSRQ will be defined as measurement quantity
- Confirmation of current status that "Per measurement type the quantity is independent from the measurement ID"
- Will be included in Ericsson TP in RP-082004

Event triggering and reporting
R2-081685 E-UTRA RRC TP on Measurement event(s) Samsung
- The proposal is in line with the way forward discussed offline for the LG doc R2-081481
- Agreed as baseline and will be merged into CR

R2-081896 Handling of multiple triggered events NTT DoCoMo, Inc.
R2-081509 Measurement reporting Nokia Corporation, Nokia Siemens Networks
R2-081897 Cell specific time-to-trigger Nortel

Gaps
R2-081577 Number of Measurement Gap Sequence Panasonic

Other
R2-081760 UE Mobility State Reporting Interdigital

Treated in 4.10
R2-081802 Neighbour List Parameters Motorola
R2-081804 Need for Complete Whitelist Motorola

Not available
R2-081510 Measurement related actions upon inter-frequency handover Nokia Corporation, Nokia Siemens Networks

5.2.1.4   Inter-RAT Mobility

Issues affecting 36.331, both for mobility from and handover to E-UTRA e.g. how to specify NACC, further details regarding message contents and associated procedures. Redirection to UTRAN/GERAN CS domain.

cdma2000
R2-081796 UE behavior with regards to acquisition of CDMA2000 system time Nortel, ALU, Ericsson, NSN, Verizon
R2-081892 UE behavior with regards to acquisition of CDMA2000 system time Nortel, Alcatel-Lucent, Ericsson, NSN, Verizon
- Proposal in 2.2 to 2.5 relate to UE maintaining cdma system time. Already captured in spec that UE should maintain sufficient accuracy of cdma system time. Nothing further to be capture. Any performance requirements can be captured in RAN4 specs.
- ALU can be solved at eNB but impacts performance
- Proposal in 2.1 to be discussed offline. Come back Friday (Nortel)

R2-081814 Pre-registration Control for the Mobility from E-UTRAN to HRPD Motorola, Alcatel-Lucent, Ericsson, Nokia Siemens Networks, Nortel, Verizon
- Proposal from rapporteur not to have a separate section for generic action and include text to forward to upper layer in both places
- Agreed (rapporteur will make the one change during merge)

CS fallback
R2-081739 CS fallback solutions NTT DoCoMo, T-Mobile
- Paper only addresses MO calls. Proposes NACC added for UTRA
- Ericsson asks what is the intention given that SA2 stage 2 (23.272) in not complete. DoCoMo intention is to just discuss the radio parts which are RAN2 decision.

- ALU asks about solutions for terminating calls. DoCoMo paging over LTE followed by MO procedure.
- NEC can redirect be done with RRC Connection Reject? Not currently supported as capability not known in the eNB. NEC a possible solution is presented in the NEC paper.
- Ericsson concerned about multiple solutions and testing. Samsung feel we have many of the solutions anyway.
- Qualcomm what is the NAS procedure to be used in the connection establishment. DoCoMo normal service request procedure.
- How does eNB distinguish this from any other NAS service request. DoCoMo assume there will be a cause value in RRC Connection Request and QCI in S1 context setup to assist eNB decisions. If eNB initiate fallback the S1 setup can be rejected.
- ALU if redirection is by RRC Connection Release is it eNB or S1 decision. DoCoMo it is eNB.

R2-081554 RRC enhancements to support CS Fallback for MT calls Texas Instruments Inc.
- DoCoMo don't like proposal 4 - prefer not to have to use handover for calls initiated from idle mode.
- DoCoMo how UE knows it needs to send CS page response is CT1 issue.
- In case of handover it will be to the PS domain and will still need to send a CS page response.

Agreement:
- Email discussion to identify options that can be used and attempt to conclude which of them will be supported. Rapporteur Mikkio

R2-081662 CS Fallback consideration HUAWEI
R2-081913 Fast CS service redirection for LTE NEC

Other
R2-081522 Network assisted cell change Ericsson
R2-081625 band information for UTRAN and E-UTRAN interworking ZTE

5.2.1.5   System information broadcast

Scheduling details e.g. signalling of individual windows & gaps; Size of value tag; Content of SIBs.

Scheduling
R2-081485 Scheduling and transmission of SIB1 Ericsson
- Nokia indicate they think it is inline with RAN1 discussions. Proposal 4 may be difficult to avoid other SI being present in subframe 5.
- Motorola are in line apart from proposal 4 for which more clarification is needed. Ericsson if proposal 4 is not agreed then some further indication on PDCCH is needed to differentiate SI1 and other SIs.
- Panasonic in line apart from proposal 4 but think RAN1 will agree some PDCCH signalling to differentiate.
- Nokia to send more SIBs in subframe 5 could be achieved if we allowed concatenation of other SIBs in SI1. Ericsson would have a consequence on the current status to only include SIBs with same period in one SI.

Agreements
- Proposal 1: Adopt distributed transmission for SI-1, where SI-1 is always transmitted only in subframe#5 starting from frame SFNmod8 and in following frames (details FFS).
- Proposal 2: (Clarification) Detailed SI-1 frequency domain scheduling and resource allocation is provided by PDCCH.
- Proposal 3: Allow for SI-1 transmission to overlap with other SI transmissions.
- Proposal 4 - response from RAN1 needed before concluding.
- No tdoc allocated for TP

R2-081578 Retransmission of System Information Panasonic
- Motorola think proposals 4/5 are not consistent. Think more than one HARQ process needed if there are different SIs can be in adjacent subframes. Nokia think it will just require some more memory but don't see it as a big problem.
- Interdigital think 4 does not need to be specified. Proposal 4 is an assumption to based our decisions but RAN1 will need to specify a minimum buffer size for this.
- ZTE think gaps could be necessary as proposed in their paper. To avoid overlap of SIs windows.

- Interdigital think there may be scenarios where gap between windows is useful

Proposal 3: Both initial transmission and retransmission of SIs except SI-1 is done within one time window.

Proposal 4: Only one soft buffer is used for SI reception.

=> nothing needs to be agreed.

Proposal 5: It is not necessary to have gap between SIs if SI-1 has no time window.

=> wait until ZTE paper is seen

Agreements:
- Proposal 3 is confirmed

R2-081624 scheduling of system information on DL-SCH ZTE

Questions: Is there a problem to fit all other SI windows between adjacent transmission windows of the SI with shortest period (ignoring SI-1)

- Ericsson can be addressed by increasing period of SI with shortest period. Motorola agrees.
- ZTE concerned this solution delays sys info acquisition.
- DoCoMo okay to increase shortest period in this case.
- Panasonic also okay
- DoCoMo maybe could capture in the spec that such configuration should be avoided (depends on final value ranges agreed)

=> Problem does not need to be addressed

Proposal 3: Order of SIs in the scheduling info is the order in which the SIs are transmitted
- Ericsson believe the order should be based on periodicity, shortest first
- DoCoMo agree with proposal.

=> Detail to be addresses when SI scheduling signalling is finalised.

R2-081743 BCCH Retransmissions Nokia Corporation, Nokia Siemens Networks
- noted without presentation

R2-081644 open issues on system information scheduling HUAWEI

R2-081740 Offsetting SI transmission SFN NTT DoCoMo, Inc.
- Interdigital think configurable offset could be preferable. DoCoMo this would give too much overhead in SI1
- Motorola think the SI reception window was to avoid this kind of problem - to allow eNB to do dynamic scheduling within window. DoCoMo would like to make window short for UE power consumption consideration.
- Ericsson - UE can turn off receiver before end of window in many cases so does not receive for whole window.
- Ericsson support proposal 1. Interdigital also
- Nokia had assumed the concern was handled by the window. so no need to broadcast any offset. Motorola agrees. DoCoMo think this could would with 10-20ms window per SI.
- DoCoMo the one bit indicator could be common to all SI to reduce overhead.

Is offsetting needed (i.e. SFN mod rep = X and the way X is signalled is next step)?:
- Yes: 10
- No: 1
- More thought needed: 5

Detail options:
- 1 bit per SI indicating X= rep/2
- 1 bit for all SIs indicating X= rep/2
- always offset by X = rep/2
- explicitly indicate X per SI

- DoCoMo indicate the total acquisition time is not significantly impacted by any of the options. Would like to understand is there is a UE battery consumption impact. If little impact then always offsetting is possible.

> Agreement:
> - Offsetting needed (i.e. SFN mod rep = X and the way X is signalled is next step)
> - Offline discussion on the detail approach. Come back Thurs (Mikio)
>
> Update on Thursday
> - No consensus
> - Some companies prefer third option, other prefer to signal something
> - Will be included in email discussion on the content if Sys Info scheduling information

R2-081742 Various System Information topics Nokia Corporation, Nokia Siemens Networks
- Only Proposal 4 needs to be discussed: Allow concatenation of SIB's with unequal repetition period
- Nokia clarified question: Is there any reason we still need to keep this restriction?
- Qualcomm this is less critical given the DoCoMo proposal that has been agreed.
- Noted

R2-081825 Scheduling block structure and procedures Qualcomm Europe
- Noted
Agreement
- Email discussion to discuss details content and structure of the SI scheduling information. Rapporteur (DoCoMo)

System info change
R2-081579 BCCH modification period and paging period Panasonic
- DoCoMo concern about delay if primary notification for ETWS is done using system info. Depends on ETWS solution. Modification period may need to be short. Qualcomm short modification period would require short paging period to ensure reliable delivery to UEs.
- Ericsson need to understand number of pages to ensure reliable delivery.
- Panasonic assume the modification period is based on a cell specific default paging cycle.
- Qualcomm open question to SA2/CT1 whether any cell specific default paging cycle is needed.
- ALU also there is an open issue about paging with IMSI. May need default paging cycle for this case.
- Samsung does the modification period need to be configurable or can it be fixed in the spec?
- Nokia very short modification periods could result in problems. TI agree. Nokia assuming e.g. 30s. Panasonic maximum is 10s due to SFN range.
- DoCoMo need short period needed to enable AC barring
- Ericsson for some system information it is not critical that sys info is updated synchronously in all UEs.
- Qualcomm assume the default paging cycle would be a large cycle. UE would use lowest of default and UE specific paging cycle
- Infineon if N is large and the modification period is large then UE does need to monitor as frequently as the UE specific paging cycle. UE could just receive some paging occasions near end of modification period. Ericsson agree this is UE implementation issue.
- DoCoMo think cell specific default could be cell specific but UE specific cycle is only known in the MME. Is the default an AS or NAS parameter. Samsung - using the lowest of default and UE specific decouples the AS and NAS.

> Agreement
> - Default paging cycle to be sent on system information (anyway needed for paging with IMSI, open if also used as a default when no UE specific DRX provided by NAS)
> - Modification period is N x default paging cycle
> - N is configurable in system
> - UE would use lowest of default and UE specific paging cycle
> - No tdoc allocated for TP

R2-081636 System Information Change issues HUAWEI
- Proposal 3 covered by previous agreements
- Motorola proposal 1 is already covered in RRC

- Qualcomm at modification period boundary UE first receives SI1 and then starts reception of other SI based on scheduling. So concentration immediately after boundary doesn't help.
- Samsung unless there are some specific requirements of certain SIs then this does not really need to be discussed. Nokia tend to agree.
=> Nothing needed. If some requirements for priority reception of some SIs is found then can look again at the issue.

R2-081580 BCCH modification occasion for LTE_ACTIVE UE Panasonic
- Panasonic clarify that the intention is that eNB selects DRX parameters appropriately to align DRX on duration and modification occasion. Samsung this is network implementation.
- Panasonic assume that eNB will send modification indication in many occasions but an individual UE will only receive a subset of them.

Proposal 1: BCCH modification indication occasion should be informed to UE by system information
- Panasonic assume that UE will receive information from system information after a handover.
- Samsung is the modification period (already agreed to be in system info) sufficient to determine the modification occasions or is something extra needed? Panasonic not yet finalised.
- Motorola this questions whether we really need 2 procedures for active and idle. Panasonic we should not reopen this.
- Ericsson question is whether UE needs to receive system info after handover.

Proposal 2: UE will check for change RNTI with a period equal to or multiple of the default idle mode paging period
- Clarification of proposal: eNB will send change RNTI at occasions with a certain period. UE does not need to check every occasion but will only check with a period equal or multiple of default paging period.
- How are the occasions specified? Panasonic they are specified same as paging occasions.
- Qualcomm probably should not be a multiple of the paging period.
- ZTE think it could be necessary for UE to know more quickly that sys info has changed than in idle.
- Ericsson does UE in DRX need to wake up at extra occasions or only at on durations?
- Panasonic commonlality between idle and connected needs to be considered

Proposal 3: RAN2 should define method to align some of BCCH modification indication occasions and DRX on-duration for UE in long DRX in order to avoid additional wake-up

Agreements:
- UE reads SIB2 after handover to acquire information related to connected mode system information acquisition (at minimum this consists of modification period, plus e.g BCCH modification indication occasion). MIB/SIB1 required to read SIB2. (Assumption is that everything for handover and to continue user plane activity handover command)
- For idle and connected mode the system information modification period is the same.
- Email discussion on connected mode system information change until next meeting (Rapporteur Panasonic)

To be discussed in email discussion
- Where are the occasions where change RNTI is send, and what parameters define this
- Which occasions does a does a UE have to check for change RNTI
- Can the occasions that the UE receives be aligned with DRX on duration
- Does the change RNTI indicate changes of SIBs relevant to connected mode or changes to any SIB
- After conclusions reached on above consider if scope to merge with idle mode procedure.

R2-081641 Validation of system infomation in HO CMD HUAWEI
- TI preference for solution 1 (i.e. target delay or reject handover). Huawei agree.

Agreements
- Can be handled by eNB implementation (e.g. delay/reject handover) and no standardised solution required.

Content
R2-081782 CDMA sysInfo IEs for broadcast Nortel, Nokia Siemens Networks, Ericsson, Alcatel-Lucent, Motorola, Verizon, Vodafone
R2-081798 CDMA sysInfo IEs for broadcast Nortel, ALU, Ericsson, NSN, Verizon

R2-081894 CDMA sysInfo IEs for broadcast Nortel, Alcatel-Lucent, Ericsson, Motorola, NSN, Verizon
- Agreed

R2-081786 Optimised GSM NCL Vodafone Ltd
- Based on GSM optimisation.
- Ericsson the optimisation is based on equal spacing of BCCH carriers. Something may also be needed for more random distribution of BCCH carriers.
- Qualcomm is proposal applicable to connected mode GSM measurement object. Vodafone equally applicable for connected mode.

> Agreements
> - Support explicit list of frequencies and also frequency list by start frequency, N, frequency difference (FFS whether we optimise the explicit list as well, e.g. by a bit map.)
> - Apply to system information and connected mode measurement objects
> - Band indicator per group of frequencies
> - TP for ASN.1 to be provided in R2-082003

5.2.1.6   Other (unicast)

E.g. issues related to NAS information transfer, general failure handling, need for normative section on UE actions in and upon change of state, UE capability,....

AS-NAS interaction
R2-081793 Summary of email discussion on NAS-AS interaction Alcatel-Lucent (rapporteur)
- noted

R2-081794 Handling of NAS information Alcatel-Lucent
- Only options 2 and 4 from the document need to be discussed
- Qualcomm we should focus discussion on admission control by eNB rather than the cases caused by network error cases.

R2-081486 Proposed way forward with NAS / RRC / S1-AP inter-actions Ericsson
- ALU - if Attach Accept is received before default bearer is setup does the UE wait for default bearer to be established before sending Attach Accept? Question based on SA2 status that Attach is only successful if default bearer is established. Infineon understand that Attach always provides IP connection and so eNB should not deliver Attach Accept is bearer setup fails. ALU - but not possible to achieve with independent procedures.
- ALU with option 4 in the event of the AS failure the NAS message will never be delivered. So NAS message can not success without AS procedure. Ericsson don't see an issue with NAS success and AS failure , UE will do Service Request. Infineon also do not see an issue.
- ALU both options would work. Question is different perception of complexity.
- Qualcomm - with option 4, AS failure in the UE should never happen so don't need to specify what to do with the NAS message in this case.
- Ericsson - can NAS failure in the UE happen? Qualcomm - should not happen either.
- Based on above comments we should not focus on error cases cause by failure at UE, but just the case eNB rejects bearer setup.
- Qualcomm indicated that NAS protocols do not support EPS bearer with associated DRB.

Agreement
- Do not focus discussion on error cases cause by failure at UE, but just the case eNB rejects bearer setup.

R2-081744 NAS-AS interaction NTT DoCoMo, Inc.
- DoCoMo prefer proposal 4 based on reduced error cases and reduced signalling over air and reduced message processing in network.
- Ericsson think the message processing doesn't make a difference.
- Huawei has sympathy for DoCoMo view
- ZTE failure cases are rare.
- Clarified that for attach case the default RB is always non GBR

Option 2 [6]

- NAS messages send over S1 and radio independently from RB setup
- Consequences:
  - AS/NAS procedure can occur in either order in UE
  - NAS procedure can succeed in UE, but AS procedure not occur (due to eNB reject)

Option 4 [8]
- NAS message piggybacked on S1 and RRC 'RB setup' messages.
- Consequence: NAS procedure can not be before the AS procedure in UE

Agreement
- Come back Friday to get view from group again.

R2-081790 Handling of DL NAS messages during RLF Alcatel-Lucent, Alcatel Shanghai Bell

TAU/Cell id in RRC Connected
R2-081491 Mechanism to perform Tracking Area Update (TAU) in RRC Connected state Ericsson
R2-081784 UE ability to obtain Serving Cellid Alcatel-Lucent

Other
R2-081692 E-UTRA RRC TP on Specified configurations Samsung
R2-081808 Cell Selection upon Radio Link Failure Motorola
R2-081864 Suspension of Uplink Transmission during Radio Link Problem LG Electronics

Moved to 4.6.1
R2-081826 Coexistence of unicast reception with future multicast requirements Qualcomm Europe

5.2.1.7　　PDU contents details

Inputs regarding general message contents and information structure e.g. parameters and their placement (except for physical layer, PDCP, RLC, MAC, see 4.4)

R2-081688 PDU related issues Samsung
    Proposal 1:　Do not create versions of the radioResourceConfiguration reflecting the constraints applicable in different scenarios
- Infineon - difficult to define all the cases that are not allowed, risks misinterpretation and interop issues.
- Samsung - difficult capture many of the restrictions in ASN.1 as well, results in duplication of information for different cases
=> Make case by case decisions - not essential to agree a rule.

    Proposal 2:　Support delta/ full signalling by (only) adding a boolean indicating whether or not the radioResourceConfiguration should be considered to be a 'delta' to the current configuration
- Samsung - it would be a bit in the radioResoureceConfiguration and applies to all of the radio resource configuration.
=> Comeback when the delta signalling for radio resource configuration is more clear

    Proposal 3:　Support release for RBs with identities 2 and higher i.e. not for SRB1
- Already covered

    Proposal 4:　It is desirable to conclude the use/ support of default and stored configurations in REL-8. So far, we have not identified a strong need and hence we suggest to limit the support for these configurations in REL-8
- Proposal clarified that we limit release 8 to default RLC configuration for SRB
- Ericsson - we should discuss logical channel default config for SRB, and discussed MIMO default configs.

    Proposal 5:　Limit the modification to a fairly high level e.g. the PDCP, the RLC, the logical channel, the MAC configuration
- e.g. UE deletes current RLC configuration and replaces with received RLC configuration.
- LG don't want to limit to this level at this stage.
- Ericsson mentioned examples where lower level parameters might want to be reconfigured individually (e.g DRX in MAC configuration)

- Infineon prefer to avoid large number of optional IEs to minimise different cases to be tested.

Proposal 6: Apply a common number range for all RBs (i.e. common for SRBs and DRBs) and apply the same identity for the radio bearer and the logical channel. Remove the RB mapping info
- Already covered

Proposal 7: Restructure the MAC configuration information by introducing an DL-SCH configuration and an UL-SCH configuration
-

Proposal 8: Introduce N and Ns within a pcch-Configuration field that is by introduced within the SemiStaticCommonChConfig

---

Agreements:
- Limit default configuration to SRBs (at least RLC config and possibly logical channel configuration) plus the MIMO configuration as discussion Tuesday.
- Level of reconfiguration is considered on a case by case basis. Starting point will be to reconfigure by replacing the existing configuration at a high level and only go to a lower level with good reasons.
- Restructure the MAC configuration information by introducing an DL-SCH configuration and an UL-SCH configuration.

R2-081678 Forwarding of measurement config info CATT
R2-081772 Conversion of clause 10 tabular into ASN.1 Ericsson
R2-081803 Reselection and measurement ASN.1 Motorola
R2-081805 UE capability value ranges Motorola

5.2.1.8   Methodology

Methodology issues e.g. related to new tabular/ ASN.1 format, protocol extension mechanism.

R2-081884 Annex to 36.331 with ASN.1 guidelines Ericsson, Qualcomm
- Note to be included to say extension mechanisms are FFS
- Agreed with note (rapporteur will add note when merging)

R2-081687 Review of protocol extension proposals Samsung

5.2.2   Cell selection & re-selection (36.304)

5.2.2.1   Status

Input from rapporteur only. E.g. open issue list, potential rapporteur update proposals.

5.2.2.2   Cell reselection

Measurement rules – Any updates needed? AOB - Details of parameters to be signalled (e.g. Thresh values signalled as delta to Qrxlevmin?). Does Qrxlevmin need to be provided for UTRA and E-UTRA frequencies? Contributions related to UMTS->LTE should be submitted under 4.10/UMTS session.

R2-081553 Measurement rules in camped on any cell state Qualcomm Europe
R2-081637 Reselection and access class barring Samsung
R2-081696 some clarifications on idle mode mobility HUAWEI

R2-081838 Discussion on priority based scheme LG Electronics Inc.
R2-081932 Discussion on priority based scheme LG Electronics Inc.

R2-081802 Neighbour List Parameters Motorola
R2-081804 Need for Complete Whitelist Motorola
Treated in 4.10

5.2.2.3   Paging

Patterns for FDD/TDD.

R2-081729 Paging details in LTE Nokia Corporation, Nokia Siemens Networks
- CMCC think 3 sub frames per frame for paging is not necessary to support. Nokia indicate that network can choose not to use the option.
- Nokia indicate choice of 1/6 is to permit implementation to read SCH in subframe 0 or 5 in same wakeup as paging.
- DoCoMo support proposal but prefer 9/4 instead of 1/6. Nokia at least for TDD 1/6 is preferable.
- ALU concerned about the loss of MBMS capacity taken by paging subframes.
- Motorola for narrow band cases the option of 0/5 is difficult to use. Nokia agree.

Agreements
- Table agreed with 9/4 instead of 1/6 (row 3 removed based on other decisions)
- CR to 304 in tdoc R2-082006 (to be prepared after coming back to TDD table)

R2-081632 Paging subframe pattern for TDD CMCC, CATT, ZTE
R2-081995 Paging subframe pattern for TDD CMCC, CATT, ZTE
- Nokia - for alternative 1 they prefer to prioritise subframe 0/5 over 1/6. CMCC also prefer 0/5.
- Motorola - could reduce the number of options an just support 1/2 subframes per frame for paging. DoCoMo no strong proposal for TDD but could agree with Motorola comment - page capacity could be half per carrier compared to FDD.
- Ericsson - would need some bandwidth dependent pattern.

Proposal 1: no need to support better granularity than power of 2 for paging group count in both TDD and FDD, which means no need to introduce 3 paging subframes per radio frame in both TDD and FDD
- DoCoMo okay with proposal but no complexity involved to support it.
- Panasonic support to reduce options

Proposal to just support 1/2 for TDD
- Nokia believe that 4 paging occasions per frame is needed. For low bandwidth 0/5 is difficult to use. Samsung don't understand why this needs 4 paging occasions. Motorola agree and don't see problem with using something different from 0/5
- ZTE in some extreme cases it is needed. If needed for FDD then could be needed for TDD.
- CMCC think we should support 4, what would be benefit of removing option of 4. DoCoMo benefits is option removal to reduce testing.
=> keep 4 supported

Proposal 2: for paging subframe pattern of TDD, we kindly ask RAN2 to discuss 2 altervatives given above and make some decisions on this issue.
- CMCC no strong preference between the 2 alternatives
- ZTE prefer alternative 1. Nokia support first part of alternative 1

Agreements
- Not to support 3 paging occasions per frame
- Proposal 2 offline discussion needed. Comeback Friday (CMCC). Tdoc R2-082005

R2-081871 Paging frame calculation in LTE Research In Motion, NTT DoCoMo

5.2.2.4   Speed Dependant Cell Reselection

Details of parameters to be signalled (e.g. individual parameters per speed or scaling factors).

5.2.2.5   Other

R2-081840 Restriction rules for inter-RAT cell reselection LG Electronics Inc.

Agreement for way forward on 304
- Rapporteur will initiate email to discuss all papers not addressed in this meeting.

Come back Friday:

- R2-081684 - Can the PDCP configuration in RCR after RRC Connection Re-establishment be full configuration (meaning UE deletes completely existing configuration and replaces with a new one) or must it always be delta signalling. Need discussion with UP.

- R2-081744, etc on AS/NAS interaction. Choice between option 2 and option 4 (6 and 8 supporting companies respectively after Thursday discussion). Get view from group again.

- R2-081995 on paging subframe patterns for TDD. See proposal from offline discussion in R2-082005

Liaisons:

- No new liaisons agreed from CP session

Email discussions:

1   Definition of establishment cause values, ALU (Sudeep)

2   CS fallback, DoCoMo (Mikio)

3   SI scheduling information, DoCoMo (Mikio)

4   Connected mode system information change, Panasonic (Takahisa)

5   Email on untreated contributions related to 236.304, Rapporteur

Annex H:
RAN WG2 meeting #61bis post processing

Email discussions/approvals

Email approvals (kick off on Monday 07.04.2008; comments up to Wednesday 09.04.2008; final version of output document on Thursday 10.04.2008):

[61b_LTE_A01] Topic: Outgoing LS to RAN3 on broadcast identities
related to: R2-081425, R2-082027
Output: final LS in R2-082041
Rapporteur: Ericsson
conclusion: R2-082041 Reply LS to R3-080547=R2-081425 on LTE-cell- and eNB-identification (to: RAN3, CT1; cc: SA2, CT4; contact: Ericsson) is agreed.

[61b_LTE_A02] Topic: Outgoing LS to (SA, SA1) with first response on home-(e)NB requirements. Should include agreed comments from R2-081527, and indicate that solutions for inbound mobility are still evaluated by RAN2 for LTE and UMTS, so RAN2 cannot yet comment on mobility performance.
related to: SP-080188 = R2-081402, R2-081527
Output: final LS in R2-081964
Rapporteur: NSN
conclusion: R2-081964 LS related to SP-080188=R2-081402 on CSG requirements for UTRA/E-UTRA (to: SA, SA1; cc: SA2, CT1, GERAN; contact: NSN) is agreed

[61b_LTE_A03] Topic: Email approval of R2-081963: Measurement and reselection corrections
related to: R2-081963, R2-081802, R2-081804
Output: final 36.331 TP in R2-082042
Rapporteur: Motorola
conclusion: R2-082042 36.331 text proposal on Reselection and measurement ASN.1, Motorola;
contents is agreed and TP will be included on 36.331 rapporteur's CR to be provided for RAN2 #62 in Kansas City.

[61b_LTE_A04] Topic: Email approval of R2-082022: PDCP minor changes
related to: R2-082022 (LTE UP session)
Output: final 36.323 CR in R2-082043
Rapporteur: LG
conclusion: R2-082043 36.323 REL-8 cat.F CR on PDCP Minor changes, LG
contents is agreed and endorsed CR will have to be resubmitted with CR number to RAN2 #62 in Kansas City for final agreement.

[61b_LTE_A05] Topic: Email approval of R2-082019: PDCP behaviour after handover
related to: R2-082019 (LTE UP session)
Output: final 36.323 CR in R2-082044
Rapporteur: LG
conclusion: R2-082044 36.323 REL-8 cat.F CR on Addition of a duplicate discard window and reordering function, LG
contents is agreed* and endorsed CR will have to be resubmitted with CR number to RAN2 #62 in Kansas City for final agreement.
*: Qualcomm raised further concerns after the deadline so it is possible that there will be a revision of the so far "agreed" CR.

LTE specifications handling (draft available by Wednesday 09.04.2008; Comments up to Friday 11.04.2008; Final version on Monday 14.04.2008): rapporteur's CR versions of the complete specs including agreements of RAN2 #61bis.

[61b_36.321] Topic: MAC (36.321)
Output: final 36.321 CR in R2-082049
Rapporteur: Ericsson/Qualcomm
conclusion: R2-082049 "36.321 CR covering agreements of RAN2 #61bis" was endorsed by email. Since it was decided to have only one rapporteur's CR for TS 36.321 for RAN #40, this CR R2-082049 will be the base for additional 36.321 changes that will be agreed at RAN2 #62.
Therefore the list of endorsed CRs in Annex E includes already the CR number for the final rapporteur's CR.

[61b_36.331] Topic: RRC (36.331)
Output: final 36.331 CR in R2-082050
Rapporteur: Samsung
conclusion: R2-082050 "36.331 CR covering agreements of RAN2 #61bis" was endorsed by email. Since it was decided to have only one rapporteur's CR for TS 36.331 for RAN #40, this CR R2-082050 will be the base for additional 36.331 changes that will be agreed at RAN2 #62.
Therefore the list of endorsed CRs in Annex E includes already the CR number for the final rapporteur's CR.

R2-082049 and R2-082050 should be used as basis for 36.321 and 36.331 text proposals at RAN2 #62 in Kansas City. Tdoc numbers for text proposals have to be requested via the automatic Tdoc numbering tool.

LTE email discussions (up to next meeting's submission deadline, i.e. RAN2 #62 submission deadline: Monday April 28th, 2008 Midnight Pacific time):

[61b_LTE_B01] Topic: Continued discussion on L1 parameters
related Tdoc: R2-081483, R2-081484
Rapporteur: Ericsson
conclusions: Kicked off by Vera Vukajlovic on 16.04.08.
See RAN2 #62 Tdoc R2-08????

[61b_LTE_B02] Topic: MAC parameters configured by RRC: trying to come to an RRC CR for the coming meeting RAN2 #62 to include additionally agreed MAC parameters
related Tdoc: R2-081726
Rapporteur: Ericsson
conclusions: Kicked off by Magnus Lindström on 17.04.08.
See RAN2 #62 Tdoc R2-08????

[61b_LTE_B03] Topic: Subscriber type response LS to RAN3 (R2-081424 = R3-080543) and GERAN2 (R2-082024 = G2-080228); especially answering questions related to active mode mobility and interaction with existing mechanisms; should we ask RAN3 to look into this?
related Tdoc: R2-081424, R2-082024
Rapporteur: Orange
conclusions: Kicked off by Sabrina Stanislas on 16.04.08.
See RAN2 #62 Tdoc R2-08????

[61b_LTE_B04] Topic: Need for additional mechanisms to come to a sufficiently performing procedure for change of MIMO configuration,
related Tdoc: R2-081489
Rapporteur: Ericsson
conclusions: Kicked off by Tomas Hedberg on 16.04.2008.
See RAN2 #62 Tdoc R2-08????

[61b_LTE_B05] Topic: Try to come to a CR for 36.300 including Home-eNB performance guidelines
related Tdoc: R2-081736
Rapporteur: NTT DoCoMo
conclusions: Not yet kicked off.
See RAN2 #62 Tdoc R2-08????

[61b_LTE_B06] Topic: Home-eNB inbound mobility support: main discussion on what is the basic mobility (i.e. UE using DRX, or requesting gaps). Can also discuss other related aspects like e.g. need for L1-id reservation/extension.

related Tdoc: R2-081735, R2-081823
Rapporteur: Qualcomm
conclusions: Kicked off by Masato Kitazoe on 16.04.08.
See RAN2 #62 Tdoc R2-08**????**

[61b_LTE_B07] Topic: Logical channel prioritisation; try to agree on text for 36.321 based on the agreed principles,

related Tdoc: R2-081456, R2-081887 (LTE UP session)
Rapporteur: Ericsson
conclusions: Kicked off by Janne Peisa on 14.04.08.
See RAN2 #62 Tdoc R2-08**????**

[61b_LTE_B08] Topic: Definition of establishment cause values (RRC connection request cause values)

related Tdoc: R2-081785 (LTE CP session)
Rapporteur: Alcatel-Lucent
conclusions: Kicked off by Sudeep Palat on 16.04.08.
See RAN2 #62 Tdoc R2-08**????**

[61b_LTE_B09] Topic: CS fallback
related Tdoc: R2-081921, R2-081739, R2-081554, R2-081920 (LTE CP session)
Rapporteur: NTT DoCoMo
conclusions: Kicked off by Mikio Iwamura on 16.04.08.
See RAN2 #62 Tdoc R2-08**????**

[61b_LTE_B10] Topic: System Information (SI) scheduling information (including offset approach)

related Tdoc: R2-081825, R2-081740 (LTE CP session)
Rapporteur: NTT DoCoMo
conclusions: Not yet kicked off.
See RAN2 #62 Tdoc R2-08**????**

[61b_LTE_B11] Topic: Connected mode system information change notifications
related Tdoc: R2-081580 (LTE CP session)
Rapporteur: Panasonic
conclusions: Kicked off by Takahisa Aoyama on 15.04.08.
See RAN2 #62 Tdoc R2-08**????**

[61b_LTE_B12] Topic: Untreated contributions related to 36.304
related Tdoc: Idle mode related: R2-081553, R2-081637, R2-081696, R2-081932
Paging related: R2-081729, R2-081871
(LTE CP session)
Rapporteur: Nokia
conclusions: Kicked off by Jarkko Koskela on 16.04.08.
See RAN2 #62 Tdoc R2-08**????**

[61b_LTE_B13] Topic: Possible LS on MAC editors notes regarding assumption on L1 (should have agreed version before RAN2 #62 submission deadline, otherwise discuss in next RAN2 meeting #62. If consensus, final version can be provided in R2-082048).

related Tdoc: R2-081718: alignments with RAN1 (LTE UP session)
Rapporteur: Ericsson
conclusions: Not yet kicked off.
See RAN2 #62 Tdoc R2-08**????**

[61b_UTRAN] Topic: RLC PDU size selection for Improved L2: open issues and aspects to be taken into account
related Tdoc: R2-081876
Rapporteur: Ericsson

conclusions: Kicked off by Janne Peisa on 14.04.08.
See RAN2 #62 Tdoc R2-08<mark>????</mark>

Annex I:
History

<table>
<tr><td colspan="3" align="center">Document history</td></tr>
<tr><td align="center">Date</td><td align="center">TSG RAN WG2 Tdoc</td><td align="center">Subject</td></tr>
<tr><td>27.03.2008</td><td align="center">-</td><td>Skeleton report for RAN WG2 #61bis provided before the meeting.</td></tr>
<tr><td>21.04.2008</td><td>R2-082061</td><td>Draft report of RAN2 #61bis (input for RAN2 #62)</td></tr>
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Author: **Dr. Joern Krause (3GPP TSG RAN WG2 MCC Support)**

ETSI Mobile Competence Centre (MCC)
Tel.   +33-492-94 4261
email: Joern.Krause@etsi.org