

Exhibit 1026

Agenda Item: 2.2

Source: ETSI MCC

Title: Report of 3GPP TSG RAN WG2 meeting #71,
Madrid, Spain, August 23 - 27, 2010

Document for: Approval

Report of 3GPP TSG RAN WG2 meeting #71

**held in Madrid, Spain
August 23 – 27, 2010**



3GPP

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- Progress on REL-10 SI Machine Type Communications (MTC) (see AI 4.3.2) captured in TR 37.868 v0.6.0 R2-105246. An email discussion [71#52] is tasked to prepare an input for this TR on simulation assumptions & results for RAN2 #71bis in October.
- REL-10 WI Further enhancements to MBMS for LTE (see AI 7.3): "working/running" CRs for stage 2 36.300 (email discussion [71#21]) and stage 3 (email discussion [71#58]) will capture the current status but they will not be submitted to RAN #49.
- REL-10 SI interference avoidance for in-device coexistence (see AI 7.6): Status after RAN2 #71 is summarized in rapporteur's update TR 36.816 v0.1.1 in R2-105214 (email discussion [71#32]) which will then be agreed at RAN2 #71bis as v0.2.0.
- REL-10 WI Four carrier HSDPA (see AI 10.2): 25.319 and 25.321 CRs agreed. Email discussions on 25.302 CR ([71#06], R2-105139), 25.306 CR ([71#05], R2-105064), 25.331 CR ([71#07], R2-105128) to reflect the latest status. It is planned to provide these CRs to RAN #49.
- REL-10 WI 1.28Mcps TDD Multi-carrier HSUPA (see AI 10.1): "working/running" CRs to 25.331, 25.322, 25.321 were reviewed. Some further agreements on SI format and UE capabilities.
- REL-10 WI on RF Pattern Matching Technologies as positioning method in the UTRAN (see AI 10.3): stage 2 25.305 CR R2-105088 agreed.
- REL-10 WI Latency Reduction was not on the agenda as WI is on hold.
- Among 482 change requests (CRs) in total: 155 CRs agreed (104 for UTRA specs, 51 for LTE specs). Also 5 REL-10 "working CRs" were endorsed that will not be submitted to RAN #49.
- Introduction of REL-10 specs (so far only 25.308, 25.319, 25.331 and 36.300 exist in REL-10): Further UTRA specifications will be introduced with approval of CRs at RAN #49. For other 36 series specifications working/running CRs are used with the intention to introduce these 36 series REL-10 specifications at RAN #50.

Note: The sequence in which the different topics appear in this report is related to the agenda of the meeting. However, the Tdocs do not necessarily appear in the sequence as they were treated in the meeting.

1 Opening of the meeting

TSG RAN WG2 chairman Gert-Jan van Lieshout (Samsung) opened the meeting RAN WG2 #71 on Monday morning 23.08.2010 at 09:00 o'clock.

On behalf of the host, the European Friends of 3GPP, Assen Golaup (Vodafone) welcomed the delegates to Madrid and explained organisational issues.

RAN WG2 meeting rooms:

Main RAN2 room: Venecia (ground floor), planned for 200 participants, Mon-Fri

UTRA ad hoc room: Estraburgo (ground floor), planned for 50 participants, Mon-Fri

UP ad hoc room: Burdeos-Marsella (ground floor), planned for 80 participants, Tue-Thu

Other WGs: same hotel: RAN1, RAN3, RAN4, RAN5.

1.1 Call for IPR

Gert-Jan van Lieshout (TSG RAN WG2 chairman) made the following call for IPRs and reminded the delegates of their obligations with respect to IPRs:

The attention of the delegates of this Working Group is drawn to the fact that **3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners to **inform their respective Organizational Partners of Essential IPRs they become aware of**.

The delegates were asked to take note that they were hereby invited:

- to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the

work of the work of 3GPP.

- to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (<http://webapp.etsi.org/lpr/>).

NOTE: IPRs may be declared to the Director-General or Chairman of the SDO, but not to the RAN2 chairmen.

2 General

2.1 Proposed Agenda

R2-104220: Proposed agenda for RAN2 #71, Madrid, Spain, 23.07.-27.08.2010 Samsung (RAN2 chairman) Agenda
=> Agreed

Time-schedule (only indicative. If issues go quicker, topics may be moved forward):

Indicative Time-schedule	Main room	LTE room2	UMTS room
Monday	[2],[3],[4]		
Tuesday	[5][6][7.1.1]		[8.1][8.2 TDD] [8.2 non-TDD]
Wednesday	[7.1.1]		[9][10.2][10.1]
Thu: before morning coffee	[7.1.2]*	[7.1.3]*	All day: [10.1 cont'd], [10.3], [10.4], [10.5] After-Lunch: Come-back session
Thu: morning coffee -> lunch	[7.3][7.4 CP]		
Thu: lunch -> afternoon coffee	Remaining of [7.x]		
Thu: after afternoon coffee			
Fri: before morning coffee	Left-overs		Come –back session
Fri: morning coffee -> lunch	[12][13][14]		
Fri: lunch -> until 5pm			

Note: Splitting between CA UP and CA CP happened finally Wednesday afternoon.

Chairman: THANK YOU for companies that submit contributions before deadline. Also early submissions are appreciated. Will start to refrain from treating late documents.

2.2 Minutes of previous meeting

R2-104221 Draft report of RAN2 #70bis, Stockholm, Sweden, 28.06.-02.07.2010 ETSI MCC Report
- Comments (if any) to be provided to MCC before Thursday evening this week
=> No comments received; final version agreed in R2-105223

2.3 Reporting from other meetings

Nothing to report.

2.4 Other

Proposed rapporteur changes
Current

New

37.868 Arnaud Meylan (Huawei) Jeff Gao (Huawei) => Agreed

Planning

For information, main open WIs/SIs with RAN2 responsible for certain output to a certain RAN meeting:

Main RAN2 related WIs/SIs	RAN Tdoc	Lead WG	WI or SI	RAN2 Agenda	Planning w.r.t. RAN delivery	Remarks
UMTS + LTE						
Minimisation of Drive Test	RP-100360	2	WI	4.3.1	TS37.320 for info: RAN#49 TS37.320 for appr: RAN#50 All CRs: RAN#50	
RAN Improvements for Machine-type Communications	RP-100330	2	SI	4.3.2	TR37.868 for appr: RAN#50	
UMTS						
LCR TDD MC-HSUPA	RP-090990	1	WI	10.1	Stage-3: RAN#49	
4C-HSDPA	RP-091438	1	WI	10.2	Stage-3: RAN#49	
RF pattern matching in UMTS	RP-091427	2	WI	10.3	All CRs: RAN#48	
Automatic Neighbour Relation	RP-100688	3	WI	10.5	All CRs: RAN#50	
LTE						
Network-Based positioning Support for LTE	RP-100135	2	WI	-	36.300, 36.305, 36.331: RP#49 36.455: RP#50	Only discuss in RAN2 after RAN#48 if RAN1 has agreed on significant benefit
Carrier aggregation	RP-100661	1	WI	7.1	All CRs: RAN#50	
Relay	RP-091434	1	WI	7.2	All CRs: RAN#50	Only start from 2010 Q2 in RAN2
Latency reduction	RP-091449	2	WI	-	All CRs: RAN#50	Put on hold until Dec 2010
MBMS enhancements	RP-100691	2	WI	7.3	All CRs: RAN#50	
MBMS Service Continuity in Connected / Location info	RP-100690	2	WI	-	All CRs: RAN#52	Put on hold until Dec 2010
In-device coexistence interference avoidance	RP-100671	2	SI	7.6	TR 36.xxx for info/appr: RAN#50	
Network Energy Saving for E-UTRAN	RP-100674	3	SI	7.7	TR 36.xxx for info/appr: RAN#50	

3 Incoming liaisons

3.1 Joint UMTS/LTE relevance

Rel-9

R2-104224: Reply LS to R2-103453 on provision and use of CN Domain Identity for CSFB (RIM) CT1
=> Noted (one concerning document in UMTS session)

Rel-10: MDT

R2-104231: LS Reply on Location Information for MDT (NTT DOCOMO) SA2
=> Noted (2 documents available on the subject in the MDT session)

R2-104240: Reply LS to R2-103461 on Location Information for MDT (Huawei) SA5 LSin
- So coordination by OAM is not preferable.
=> Noted (2 documents available on the subject in the MDT session)

R2-104235: LS reply to R2-103451 on MDT configuration for IDLE mode UE (Alcatel-Lucent) SA5
- Chairman wonders if we can not conclude that there is no LOG in Connected ? Vdf agrees that it seems this is not needed for Rel-10 for coverage aspects. However maybe in a limited way for RLF we might consider. Chairman thought we have considered this as part of limited MDT.
- TIM thinks SA5 did not really address the problem, so we can not really decide on this based on this LS. In general we are contribution driven. DT would like to decide now. QC

thinks it is clear we have no logged MDT in CELL_DCH. TIM is ok to have it as baseline decision

Agreements:

- For Rel-10 (i.e. coverage mapping) UMTS we have no logged MDT in CELL_DCH
 - For Rel-10 (i.e. coverage mapping) LTE we will not have Logged MDT in connected.
- FFS if whether for LTE, we will see additional enhancements (i.e. in addition to positioning info already agreed) for RLF reporting (e.g. IDLE survival, separate small buffer) as part of immediate MDT

- R2-104236: LS on MDT configuration for IDLE mode UE (NSN) SA5
- Contributions available
=> Will sent response LS after discussing contributions in R2-104935
- R2-104239: Reply LS to R2-102666 on UE selection for MDT (Huawei) SA5 LSin
- Several contributions available that build further on this information
=> Noted
- R2-104241: LS on measurement frequency and collection period definitions for Logged MDT (NSN) SA5 LSin
- NSN proposes to reply from next meeting
=> Noted: NSN will provide draft response to next RAN2 meeting

Rel-10: Other

- R2-104232: Follow on to LS response R2-104202 on support for Priority for terminating sessions for MPS (Telcordia) SA2
- Input documents are available; Will be handled by LTE session.
=> Will sent response after having discussed related documents in R2-104936
- R2-104237: Consent of Recommendation G.9971 "Requirements of transport functions in IP home networks" ITU-T SG15
=> Noted (just for information; wait for SA2 before concrete actions)
- R2-104238: LS on "Mobile Wireless access systems providing telecommunications for a large number of ubiquitous sensors and/or actuators scattered over wide areas in the land mobile service" (Telecom Italia) 3GPP TSG RAN ITU-R Ad Hoc LSin
=> Noted; no comments from RAN2 side. Chairman will indicate this in RAN plenary (GJTODO).

3.2 LTE relevance

Rel-9: Positioning

- R2-104222: Concerning LTE Positioning Protocol OMA LOC WG
=> Proposed response LS in R2-104692. Rest of discussion is minuted there.

Rel-9: MBMS

- R2-104228: LS on MBMS UE capability (Panasonic) RAN1
- QC wonders how this can really work if we have different categories, especially for category 2 ? How do we make how the correct UE's listen to the correct MBSFN areas ? In UMTS there is only one UE category in this respect. Can be discussed offline.
=> Should see CR in R2-104939 CR0035 (Rel-9) (see agenda item 6.3.2)

Rel-9: Other

- R2-104223: Reply LS to S1-101239 on Access Control for CSFB (NTT DOCOMO) CT1
=> Noted

Rel-10: Carrier Aggregation

- R2-104229: LS on Signaling of PDSCH Starting Position for Cross-CC Scheduling (NSN) RAN1
=> Noted (take into account in further work)

- R2-104230: Reply to LS to R2-103449 on DL timing difference and DL timing reference in Carrier Aggregation (Ericsson) RAN4
=> Noted (so Pcell can be timing reference always in Rel-10, and no impact on MAC expected due to small misalignments)

Rel-10: Relays

- R2-104233: LS on Enhancing the AS security (Qualcomm) SA3
- Several documents available
=> Will sent response after concerning discussions in R2-104940
- R2-104234: Reply LS to R3-101971 on OAM security and OAM connection issues of RN (NSN) SA3
- NSN thinks no direct action for us.
=> Noted

Late LSs

- R2-104242: Reply LS on SCell activation/deactivation RAN4
- QC thinks that although there is no complete RAN4 convergence, QC's feeling from the RAN4 discussion is that RAN2 could take the baseline that there are no glitches and then only reconsider when RAN4 would come with completely different input.
 - Nokia thinks new inputs were new issues raised. E.g. power imbalance aspects.
 - Mediatek also has concerns on power imbalance.
 - Chairman wonders why the network would not remove a carrier when there is a large power imbalance ? Nokia thinks this could be discussed in RAN2, but at least for now it seems allowed to keep such a carrier deactivated until it becomes useable again. Nokia agrees that maybe this could be handled by limiting cases in which deactivated CC's can remain. QC thinks in general we do not forbid bad network implementations, and a smart network implementation would not keep problematic carriers configured. Nokia thinks that if RAN2 thinks it would be acceptable to not keep carriers configured/deactivated in all cases, this could potentially be indicated to RAN4.
 - Panasonic wonders if the power imbalance problem would only exist when a deactivated Scell is stronger than activated serving cell ? Nokia confirms.
 - Panasonic wonders if this is only a DL problem or also an UL problem ? Nokia thinks similar problem exists for UL: transmission image will be different depending on whether you have the RF wide or small.
 - CATT wonders how serious the power imbalance issue is ?
 - QC/IDT thinks that if one layer is the coverage layer and the other layer would become significantly stronger, it would not be nice if the result would be that we have to release the cell on the coverage layer.
 - Ericsson wonders if the power imbalance is a problem of a deactivated Scell, or even for an activated Scell. Ericsson assumes in general when this happens we have to reconfigure, but there is no relation to activation/deactivation. Ericsson assumes we would want to use the best cell.
- After offline discussion: for this meeting continuation proposal is to:
- => In this meeting continue under the assumption that there is no glitch from specification point of view. Can capture tentative agreements (not capture yet in TS) in the minutes.
- This means either there is no glitch or it is not significant and can be ignored from L2/3 point of view (leave as UE implementation).
 - Nokia assumes the power balance it is only a problem in the adjacent CC case, and scenario3 would typical be inter-band. So we could indicate to RAN4 that this might not be such a problem problem in practice We could also indicate that RAN2 assumes if there is a very big power imbalance between configured CC's, the best cell would become activated and the other one can be removed (not a problem specific for deactivation). DT thinks it is not obvious scenario3 is not intraband. NTT DCM assumes that in that case RRM should always ensure that the Pcell is the best.
 - QC wonders why configurability for the measurement period would be required ? Nokia thinks this would be beneficial because depending on deployment a different periodicity would be suitable.
- => Will sent response LS to RAN4 that we are urgently awaiting further input. That we assume that if there is a big imbalance between activated CC's, the network should want to use the best cell, i.e. activate the best cell and release the other cells (so problem is not so related to activation/deactivation). Will see LS in R2-104985

- R2-104996: Input from RAN3 on relays
- Ericsson thinks it would be good to have some reformulation of the CR attached to the LS: -e.g. we don't want is "start RN operation". Ericsson thinks the "start RN operation" can just be removed. Remove "start RN operation" in two places. QC thinks there is no need to remove this. It is more than starting Uu. It is starting to consider to be an RN.
- => Vdf thinks the CR should talk about DeNB cell list. Some sectors of an DeNB might not support relay, while others do. Change to "List of DeNB(s) cells"
- => Will remove "and begins relay operation" at end of phase II paragraph.
- => With this changes, the CR is agreed in R2-105202 CR0255 (QC will provide)

3.3 UMTS relevance

Rel-8

- R2-104226: LS on Support for different HS-SCCHs in contiguous TTIs in CELL_FACH (Ericsson) RAN1
- Documents available in UMTS session
- => Will sent response from UMTS session after discussion in R2-104941

Rel-10: 4C-HSDPA

- R2-104225: LS on Draft RAN1 CRs for 4C-HSDPA (Qualcomm) RAN1
- Most is accounted in draft CR's
- => Noted (take into account in further work)

Rel-10: LCR TDD MC-HSUPA

- R2-104227: LS on RAN1's agreements on LCR TDD MC-HSUPA (CATT) RAN1
- => Noted (take into account in further work)

Late LSs

- R2-104992 Reply LS to R2-104120 on Required Information from UE for 3G ANR (Nokia Siemens Networks) RAN3 LSin REL-10 ANR_UTRAN-Core received on Wed during RAN2 #71; to: RAN2; treated in UTRA session
- RAN3 needs RNC-id which isn't directly accessible by UE. Instead UE can report cell id which may contain rnc-id.
 - HW: this is up to operator, there is no guarantee that cell-id contains rnc-id
 - Nokia: RAN3 points with reselection, the information for intra-freq is already in the NW.
 - HW: how is the sentence about UE reselecting to the cell relevant? Nokia indicates cell update msg already contains the info needed by NW for intra-freq. Nokia indicates the difference is in CU UE reports Source SRNC id which UE can't read in sys info.
 - Nokia: replying to the LS won't really help. RAN3 indicates reading system info won't really solve the issue.
 - NEC: RAN3 indicated RNC-id is necessary however it may not always be available in cell id. RAN2 can discuss further methods to solve this.
 - ZTE: RAN3 is asking if RAN2 can find a solution for this. HW indicates there can be other solutions outside RAN2 to solve this (OAM).
 - Nokia: the reselection solution doesn't have this issue of rnc-id hence there is no problem in this case.
 - ALU: RAN3 asks to tell them if a parameter cannot be reported. We'll determine this based on the solution chosen.
- => Noted, no LS answer
- R2-105205 Reply LS to R2-104121 on 4C-HSDPA capabilities (Ericsson) RAN4 LSin REL-10 4C_HSDPA-Core received on Thu during RAN2 #71; to: RAN2; treated in UTRA session
- RAN4 confirms the signaling options we took. No need for reply LS.
- => Noted, no LS answer
- R2-105245 LS Response on Enabling Detected Set feature for Inter-Frequency Measurements RAN4 LSin REL-10 TEI10 received on Fri during RAN2 #71; to RAN2;
- Nokia indicates that there might come a WI to RAN for this (draft WID seen in UTRA session in R2-105112).

=> Noted, no LS answer

4 UMTS/LTE joint session

Contributions submitted under this agenda item will be handled in a joint UMTS/LTE session. Documents should focus on Stage-2 aspects common for both UTRA and E-UTRA, but also common stage-3 aspects should be submitted here (e.g. 25/36.304).

4.1 Release 8

Including in principle agreed CRs.

In principle agreed CRs

R2-104243: Clarifications on autonomous search function NTT DOCOMO,INC, Telecom Italia CR 25.304
0258 -F REL-9EHNB-RAN2

=> Agreed

R2-104270: Clarifications on CSG autonomous search NTT DOCOMO,INC., Telecom Italia CR 36.304
0134 - F REL-9EHNB-RAN2

=> Agreed

Other

R2-104413: Clarifications Regarding Redirection from LTE Nokia Corporation, Nokia Siemens Networks, Vodafone CR 36.304 (0135) - F REL-8LTE-L23

R2-104414: Clarifications Regarding Redirection from LTE Nokia Corporation, Nokia Siemens Networks, Vodafone CR 36.304 (0136) - A REL-9LTE-L23

R2-104415: Clarifications Regarding Redirection from LTE Nokia Corporation, Nokia Siemens Networks, Vodafone CR 36.331 (0451) - F REL-8LTE-L23

R2-104416: Clarifications Regarding Redirection from LTE Nokia Corporation, Nokia Siemens Networks, Vodafone CR 36.331 (0452) - A REL-9LTE-L23

- DT thinks we should get an indication from GERAN before taking further action. Nokia indicates it was heavily discussed with GERAN experts. Also we now align to our own text in UMTS.
- On the first point, Panasonic agrees with DT. For the second point, Panasonic wonders if this is urgent for Rel-8. DT agrees this is not so urgent for Rel-8. Also what does "as soon as possible" mean ?

First change:

- Huawei is ok with the first change, but it should be enough to only change 36.331.
- Huawei thinks we have no terminology "camp on any suitable cell"
- Vdf clarifies that this CR was triggered by the discussion on "cell selection terminology", and the as soon as possible is used in GERAN. DT is not so happy about the "as soon as possible"
- Nokia thinks the "as soon as possible" can probably be avoided, but the important thing is to avoid use of "cell selection".
- Samsung thinks "camping on suitable cell" and "cell selection" is the same. Vdf thinks this is an essential difference and therefore this is an important change. Reselection to GERAN should not cause big delays which might be caused by cell selection.
- IDT supports the proposal but thinks some reformulation is needed.
- NTT DCM wonders about the implications of this change to redirection to UMTS/E-UTRAN and GERAN? Nokia wants to have the same approach for all RAT's like we have now in 25.331.. NTT DCM thinks there are already Rel-8 terminals, so we should not have Rel-8 CR's.
- DT thinks we do not use this "asap" for reselection to UMTS, so this should only impact reselection to GERAN.
- Nokia thinks we should try to keep aligned behaviour as much as possible.
- TIM agrees with the intention of the CR's. We should even consider performance requirements ?

=> Can continue offline to come to Rel-9 CR's in R2-104942 CR0136 36.304, R2-104943 CR0452 36.331

R2-104942: Clarifications Regarding Redirection from LTE CR 0136 36.304

- => In two places, "select" shall be replaced with "shall attempt to select" (one but last sentence in both paragraphs).
- => With this change the CR is agreed in R2-105232 CR0136 R1
- R2-104943: Clarifications Regarding Redirection from LTE CR 0452 36.331
- => CR is agreed

4.2 Release 9

Including in principle agreed CRs.

In principle agreed CRs

- R2-104244: Introduction of SRB only handover capability NTT DOCOMO INC, CR 25.306 0269 -F REL-9TEI9, LTE-L23
 - => Not agreed since feature removal now agreed as way forward
- R2-104263: Introduction of SRB only handover capability NTT DOCOMO,INC CR 25.331 4203 -F REL-9TEI9, LTE-L23
 - => revision available in R2-104365
- R2-104365: Introduction of SRB only PS HANDOVER capability NTT DOCOMO, INC. CR 25.331 4203 1 F REL-9TEI9, LTE-L23
 - Note: This is a revision of an in principle agreed CR (R2-104263 CRNum 4203).
 - Nokia points out that the update related to the inter-RAT handover info is not complete. We also have a compressed version, and a COMP2 version which is always included. So is there a problem that if the compressed version is used, should this not be provided ? So either move to COMP2, or accept it is not provided when compressed capabilities are used ?
 - DT thinks we should not have multiple options for the same feature: so is this really needed ? NSN would be fine to remove the whole feature. NTT DCM would like to support removal. Huawei also supports removal. ALU would also prefer to remove the feature. Ericsson would also like to remove the feature.
 - => Not agreed since feature removal seems preferable
 - => Will see small outgoing LS to SA2 to inform them in R2-104944
 - => Will see CR's for 25.331 for removal in R2-104945 CR4317(R9), R2-104946 CR4318 (R10)
- R2-104945: Removal of PS SRB only Handover
 - => CR is agreed
- R2-104946: Removal of PS SRB only Handover
 - => Spec version number should be 10.0.0
 - => With this change the CR is agreed in R2-105228
- R2-104264: Introduction of SRB only handover capability NTT DOCOMO,INC CR 25.331 4204 -A REL-10 TEI9, LTE-L23
 - => revision available in R2-104366
- R2-104366: Introduction of SRB only PS HANDOVER capability NTT DOCOMO, INC. CR 25.331 4204 1 A REL-10 TEI9, LTE-L23
 - Note: This is a revision of an implicitly in principle agreed CR (R2-104264 CRNum 4204).
 - => Noted: no longer relevant

New

- R2-104728: Rel-8 FGI handling in Rel-9NTT DOCOMO, INC., TeliaSonera, Deutsche Telekom, Telecom Italia, Orange, CMCC, KDDI, AT&T, Verizon, Telefonica Disc REL-9TEI9, LTE-L23
 - => Updated before presentation in R2-104933
- R2-104933: Rel-8 FGI handling in Rel-9NTT DOCOMO, INC., TeliaSonera, Deutsche Telekom, Telecom Italia, Orange, CMCC, KDDI, AT&T, Verizon, Telefonica Disc REL-9TEI9, LTE-L23
 - Provided for information only and obtaining comments offline. Further discussion will be taken on RAN reflector. Decision will be taken by RAN
 - KDDI is fine with further offline discussion
 - NTT DCM thinks the main points for offline discussion are:
 - review setting every plenary cycle or only set once per release ?
 - what are the criteria to mandate setting to TRUE ?
 - => Noted (offline discussion appreciated to come with good input to RAN)

- R2-104729: Clarification of FGI setting for inter-RAT features not supported by the UE NTT DOCOMO, INC. CR 36.331 (0465) - F REL-9TEI9, LTE-L23
Handling of not supported RAT
- Panasonic supports the clarification in case not supporting a RAT. However alternative would be to specify that the network should ignore these bits. For Rel-8 we did not have this requirement. NTT DCM could agree to this since we already have Rel-8 terminals. However from Rel-9 NTT DCM assumes it would be better to have UE behaviour.
 - NTT DCM thinks there might be terminals that dynamically can configure RAT support. NSN thinks we agree no dynamic support. NTT DCM is thinking about dynamic support before ATTACH. Such terminals would also have to support FGI bit setting.
- => Can agree to this principle for Rel-9
- When absence of the indicators is allowed ?
- Chairman points out that with this CR we can no longer use the undefined bits. NTT DCM agrees and this is the intention.
 - Nokia wonders if we are absolutely sure we do not need the remaining "undefined" bits ? It seems we remove a safety net ? QC agrees with Nokia and we should probably wait a bit. E.g. if we need separate bits because of the exercise of setting bits to TRUE in Rel-9. NTT DCM wanted to not have this splitting. Nokia thinks it would be good to have the safety net.
- => Not agreed for now
- => Will see update of the CR only including the clarification w.r.t. RAT support in R2-104947 CR0465
- R2-104947: Clarification of FGI setting for inter-RAT features not supported by the UE NTT DOCOMO, INC. CR 36.331 0465 - F REL-9TEI9, LTE-L23
- Chairman wonders why the "deployed in network" was removed ? This was used to allow not supporting features that are never implemented and still have the bitmap absent. Nokia agreed
- => Should keep the "and deployed in the network"
- => Change to "has implemented and been tested for"
- => Update can be provided in R2-105234 CR0465 R1
- R2-105234: Clarification of FGI setting for inter-RAT features not supported by the UE NTT DOCOMO, INC. CR 36.331 0465 R1 F REL-9TEI9, LTE-L23
- NTT DCM has made slightly different update as discussed.
- => CR is agreed
- R2-104907: Clarification of FGI setting for inter-RAT features not supported by the UE NTT DOCOMO, INC. CR 25.331 (4314) - F REL-9TEI9, LTE-L23
- R2-104909: Clarification of FGI setting for inter-RAT features not supported by the UE NTT DOCOMO, INC. CR 25.331 (4315) - A REL-10 TEI9, LTE-L23
- Based on the previous discussion, NTT DCM would like to have the same RAT clarification in the UMTS spec.
- => Panasonic wonders whether the magic sentence is required ? NTT DCM sees no harm. Can keep the magic sentence.
- => Will see updates only reflecting the RAT part in R2-104948 CR4314, R2-104949 CR4315
- R2-104948: Clarification of FGI setting for inter-RAT features not supported by the UE NTT DOCOMO, INC. CR 25.331 4314 - F REL-9TEI9, LTE-L23
- => Same comments as on R2-104947
- => With these changes the CR is agreed in R2-105235 CR4314 R1
- R2-104949: Clarification of FGI setting for inter-RAT features not supported by the UE NTT DOCOMO, INC. CR 25.331 4315 - A REL-10 TEI9, LTE-L23
- => Same comments as on R2-104947
- => With these changes the CR is agreed in R2-105236 CR4315 R1
- R2-104730: Conditions for ProximityIndication and SI-AcquisitionForHO capabilities NTT DOCOMO, INC. CR 36.306 (0034) - F REL-9EHNB-RAN2
- Proximity
- RIM wonders what "capable of CSG whitelist" mean ? Is it a non-empty whitelist or a UE capable of having a non-empty whitelist ? NTT DCM assumes the second. Anyway the feature is not used if the terminal has an empty whitelist. RIM thinks it is simpler to say "if the UE has a non-empty CSG whitelist". NTT DCM points out we do not support dynamic change of capabilities
- SI acquisition

- If there is no confusing in initial networks, it might not possible to test the feature. So then there is a problem. NTT DCM assumes it can be tested in network which do not have PCI confusion. Network just has to ask the SI reading. NTT DCM is especially concerned about coming re deployments of open femto cells. Then it is important also for non-CSG terminals.
- Ericsson does not see this as an essential feature and has no problem with linking this to UE's supporting CSG. QC has some concerns on mixing IDLE and CONN mode capabilities; e.g. a terminal might only support IDLE mode CSG handling. So QC would prefer to keep the capabilities optional.
- NTT DCM thinks the SI acquisition is more important. NTT DCM understands that SON-ANR is implemented and tested for Rel-8. Then the Rel-9 addition should be quite small (autonomous gaps). TIM agrees with NTT DCM.
- Nokia thinks SON-ANR is sufficient for confusion handling. Also mandating features only for testing seems strange.
- NTT DCM points out that also UMTS part should be discussed

After offline discussion, it is proposed to mandate intra-freq acquisition for handover for LTE, and all other cases we leave completely optional. Corresponding CR to 36.306 in R2-105224

R2-105224: Conditions for ProximityIndication and SI-AcquisitionForHO capabilities CR0034 36.306

- DT thinks this proposal is not an offline agreement, but a preference from some companies. DT wants to keep inter-freq SI reading also mandatory. TIM shares the DT view.
- Nokia thinks the SI-reading for inter-freq is not that urgent (not for loosing coverage) and the SON-ANR feature can be used for SI reading.
- DT thinks it is not sufficient to rely on SON-ANR. TIM thinks if we also have the inter-freq as an IOT bit, still the UE vendor has some freedom. Nokia thinks the feature is quite complex. Nokia would prefer to keep all this functionality optional. Samsung shares the same view as Nokia. It might be better to further discuss this.

=> We should not capture mandatoriness in a NOTE

=> EMAIL DISC [71#01], rapporteur: NTT DOCOMO

R2-105225: Conditions for ProximityIndication and SI-AcquisitionForHO capabilities CR0472 36.331

=> EMAIL DISC

- Nokia indicates all features from Rel-6 have been optional in UMTS.

=> EMAIL DISC on the mandatoriness of these CSG features for LTE & UMTS. Deadline 1 week NTT DCM.

=> If agreements are reached, document numbers/CR numbers are provided offline

4.3 Release 10

4.3.1 Minimisation of Drive Test (RP-100360)

(MDT_UMTSLTE-Core, leading WG: RAN2, started: Dec. 09, target: Dec. 10, WID: RP-100360)

4.3.1.1 Stage-2 Corrections

Proposals from rapporteur to correct/improve Stage-2 TS37.320 shall be submitted under this agenda item. Also proposed non-contentious corrections to the TS can be submitted here.

R2-104303: Clarification on logged MDT report retrieval HTC TP 37.320

- Samsung points out we should also allow UEInformationReponse on SRB2.

=> Change is agreed and will be included in Rapporteur update in R2-104950

4.3.1.2 Stage-2: Logged MDT in IDLE

E.g. Do we have any logging while UE is in OOS ? What is the acceptable minimum maximum log size (storage requirement for UE ?) and do we need to be able to handle reporting with multiple RRC messages as a result ? Do we need to be able to configure what reporting is allowed for neighbouring cell information ? Any further enhancement needed for inter-RAT handling?

Forced transition to CONN?

R2-104549: MDT Configuration of UE in Idle Mode Vodafone Disc

R2-104536: MDT Configuration for IDLE UE CATT Disc

Discussion:

- NTT DCM wonders if we use the trace, is the UE not always connected already ? So will this not have large implications ? Vdf has not really investigated the implications.
 - LG thinks for periodic TAU the UE will every 2 or 3 hours go to connected. Is this not enough ? Vdf agrees but it could make the operator have to wait.
 - DT thinks in Rel-10 we can wait until the UE goes to connected. DT thinks the most interesting UE's for MDT will often be in connected.
 - Vdf agrees smart-phone model means often connected. But still is not sure we might not have sufficient numbers in CONN that support MDT.
 - ALU wonders if there is any specification impact ? MME can in general always trigger state change to connected. NTT DCM thinks there might be RAN3/SA5 impact. NTT DCM sees no need to page the UE for MDT in Rel-10. ALU wonders if there is really RAN3 impact. DT also sees no RAN3 impact, maybe SA5 impact
- => No need for bringing the UE to connected in Rel-10 for MDT (can be reflected in outgoing LS).

Reporting in OOS

R2-104548: MDT Logging when Out of Service Vodafone Disc

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R2-104493: Logging in OOS state Nokia Corporation, Nokia Siemens Networks Disc

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R2-104840: On the need of MDT logging during OOS LG Electronics Inc. Disc

R2-104538: Handling of logged MDT timer CATT Disc

R2-104644: Necessity of logged MDT in OOS ZTE Disc

R2-104766: Logging during out of coverage Research In Motion UK Limited Disc

All 4 Tdocs not treated

Do we want to mandate any logging during cell selection/camped on any cell state ?

Discussion

- DT support the view expressed by Vdf to have logging in OOS. NTT DCM agrees.
 - LG thinks it would be better not to have this. It should be sufficient for the network to work with the "non-OOS" information.
 - CATT would like to have the logging in OOS. CATT thinks that if the UE cannot read ECGI, the UE can log the information from the last cell.
 - CMCC would also like to have logging in OOS.
 - STE wonders what the UE logs during cell selection / any cell camping ?
 - DT is not concerned about any cell camping/camping on another PLMN. Only the situation of not camping at all (cell selection).
 - ZTE supports some logging during OOS, during any cell selection state. It might still be possible to log some location/time info and maybe even serving cell info.
 - LG thinks this will cause a lot of complexity if UE is camping on other PLMN, or not reading anything at all.
 - RIM is in line with ZTE: in cell selection state we could log. If the BCCH can be read, the serving cell info could be logged, even if the S-criteria are not met.
 - Vdf wonders about UE feasibility. E.g. when going out of service you just continue logging as long as you are not camping
 - Huawei thinks typically in OOS there is no serving cell, so we should at least log the location.
 - Vdf thinks we could log loc/time as long as the serving cell is not suitable. DT agrees.
 - Nokia points out that when the UE is OOS, then the UE will be listening broad, all RAT's/frequencies. So can we really require anything ?
- => Allow offline discussion on whether/how we could have requirements on (part) of the OOS situation w.r.t. MDT logging. Output of offline discussion in R2-105208

R2-105208: Summary of Offline Discussion MDT Logging in OOS

Proposal 2:

Agreements:

- 1) RAN2 should be discussing the need for MDT logging in 'camped normally' state, 'any cell selection' state and 'camped on any cell' state rather than in 'out of service'.
- 2) MDT logging applies in "camped normally state"
(There is a period (10s for EUTRA and 12s for UTRA) between cell selection criteria not being met and UE entering 'Any Cell selection' state during which UE is still in "camped normally state" and MDT logging applies)
- 3) MDT logging in 'any cell selection' state is not required, not even location information.
- 4) MDT logging in 'camped on any cell' state is also not required, not even location information.
- 5) When the UE is in "any cell selection" state or "camped on any cell" state, the periodic logging will stop. When the UE then re-enters "camped normally state" again (and the duration timer has not expired in the meantime), the periodic logging is restarted (based on new DRX) and logging will automatically resume (with jump in timestamp). Note that timestamp information and duration timer continue normally.
- 6) In addition to the above state in IDLE, while in UMTS the logging also is performed in CELL_PCH and URA_PCH states (reconfirmation)
- FFS if we need to specify more details for this case (e.g. UE enters FACH at every cell update)

=> Should also be captured in stage-2

- Samsung wonders where the 10s for EUTRAN comes from ? Nokia indicates that this is already in 36.133/25.133. Vdf thinks it is important not to immediately stop when the S-criteria are not met.
- A) If UE entered 'any cell selection' state, the time and location information is logged once.
 - DT would prefer to see A). ZTE wonders if it is really usefull ? E.g. the location where the S-criteria expired 10s ago does not seem so usefull. If we log at any point in time, we should log at the location where the S-criteria become no longer met. DT agrees it is an optimisation but sees some benefits. NTT DCM support DT. LG thinks this is clear optimisation and you make nice coverage map without this.
 - Motorola would prefer not to have A. Operators anyway assume the logging will be done with a few sections.
- B) Once the UE found a new suitable cell the UE logs the time and location information. It will then resume normal MDT logging as per its MDT configuration.
 - DT would prefer to have this.
 - Nokia assumes the periodic timer continues all the time (even in any cell state/any cell selection state), and then when entering camped normal state, the logging will continue again. With this explanation, DT is ok not to have this.
- C) Finally, one company raised the issue of whether the same handling would apply for UMTS in CELL_PCH and URA_PCH. This requires more discussions.

Neighbouring cell reporting

- R2-104875: Neighbouring cell measurements for Logged MDT in IDLE LG Electronics Inc. Disc
- Kyocera thinks inter-freq and inter-RAT are important, e.g. for coverage comparison of different RAT's. CMCC agrees with Kyocera; surrounding inter-freq/RAT is interesting e.g. for antenna downtilt
- => Noted (intra-freq alone is not sufficient);

R2-104877: Availability of neighbouring cell measurement at logging LG Electronics Inc. Disc

- LG clarifies this paper is a bit related to OOS. E.g. when OOS happens between 2 measurement periods.
 - CMCC understands the measurement of serving cell and neighbouring cell might not be logged at the same time. CMCC thinks for time/location logging we can refer to nearest serving cell logging. Some inaccuracy for neighbouring cell logging is acceptable.
 - Nokia thinks in general we do not define when measurements are performed; we just have performance requirements and the measurements should comply with the performance requirements. So measurements are always relatively "recent" in line with the performance requirements which will depend on the applied DRX.
 - LG wonders what this means ? Will any reported measurement be recent and valid ? Nokia indicates they have to be "valid" according to the RAN4 performance requirements. Ofcourse UE should always include most recent measurement results. Nokia thinks that if additional requirements would need to be formulated, they would have to be specified by RAN4. But we agreed before there would be no additional requirements.
- => Noted: no real issue assumed

R2-104646: Neighbouring cell information for logged MDT ZTE Disc

-

R2-104552: Neighbouring Cell Measurements Logging and Reporting CMCC, Vodafone, NTT DOCOMO, INC. Disc

- Kycera wonders if this is only for periodic reporting, or also for event based reporting ?
- Nokia wonders if this is a kind of "filter" in the UE for logging, but it does not overwrite the S-criteria already in the UE (which could mean the UE is not logging due to S-criteria) ? CMCC agrees that the logging is only based on available measurements.

R2-104765: Reporting of neighbour Cells in Logged MDT Research In Motion UK Limited Disc
not treated

- 1) Specify max for additional reporting (e.g. max 4)
- 2) Specify RSRP and/or RSRQ threshold for additional reporting
- 3) Specify max quality difference between strongest cell and other cells on CC for additional reporting
- 4) Configure max for intra-freq/inter-freq/inter-RAT reporting

Discussion

- Nokia wonders why the Ssearch is not enough ? Would they not mean that typically not so much additional neighbour cells measurements are available ? CMCC points out that depending on priority (higher priority freq), the measurements are always performed periodically. Nokia assumes that there are not many higher priority cells reported, because the UE would camp on there.
- DT proposed the threshold in the past and still thinks it is usefull.
- RIM thinks priority is important.
- Vdf thinks Ssearch is the trigger, but if the trigger is met many neighbouring cells can be measured. The proposal here is to have an additional filter for logging.
- Vdf thinks if we have a specified max only, then we might get logged results for many unimportant cells.
- Nokia wonders if we have a max number, is it max per frequency, or overall max ? Nokia assumes more than 3 is quite unlikely on one frequency. Nokia doubts if we need to limit at all ? STE agrees. Why not only log the best cell on each frequency.
- LG would prefer to keep the additional complexity for UE in IDLE as limited as possible. So a fixed number in the spec might be sufficient. If there is really a big problem we can revisit in later releases.
- RIM would be fine with "best cell only". Normally we do not have so many layers.
- CMCC is also worried if we have only max, we get unnecessary results, but in other cases we might miss important neighbours.
- CMCC clarifies that for inter-RAT they would propose an absolute threshold, and for intra-freq and inter-freq we can either compare to serving cell, or based on absolute threshold
- Vdf thinks we need a threshold (RSRP) and a maximum for intra-freq inter-freq and inter-RAT. So an RSRP threshold, RSCP threshold and Rxlev threshold would be needed, and also a maximum.
- NSN clarifies current status that available additional measurements can be reported (so far not limited to RAT).

- Nokia thinks intra-freq neighbours is sufficient. NSN thinks primary goal is coverage maps. Vdf thinks that if we have inter-freq/inter-RAT available, we should be able to log them. This will all help in determining coverage quality.
- DT thinks we should be able to control whether inter-freq/inter-RAT measurements are logged.
- Nokia would prefer to only log intra-freq neighbours. You can get logs from other UE's on other CC's to get more results. CMCC thinks this will not help for making the relation between different layers.
- => We reconfirmed that we allow reporting of available neighbouring cell measurements intra-freq/inter-freq/inter-RAT. FFS whether we need to limit and if so how (e.g. based on number, quality,...). Email discussion can also try to conclude on what is logged **EMAIL DISC CMCC. [71#50]**

UMTS PCH/FACH applicability

R2-104466: Logged MDT in UTRAN States Nokia Siemens Networks, Nokia Corporation Disc

-

R2-104529: Consideration on UMTS RRC states in MDT CATT Disc

R2-104469: Applicability of MDT to different RRC States in UMTS Qualcomm Incorporated Disc
Both Tdocs not treated

Discussion:

- Vdf thinks this discussion should be taken also considering fast dormancy discussion. Then many UE's might be in PCH/FACH and we should have them logging. DT agrees at least for PCH states.
- QC thinks log MDT should be applicable to PCH/FACH states. Having immediate reporting in RACH in these states is not efficient.
- CATT thinks we should include PCH/FACH states.
- NSN agrees that more UE's will be in PCH/FACH states, but it will not be 99%. So there is enough UE's in IDLE. DT thinks the interesting UE's (smart phones) will be in PCH/FACH often and not in IDLE.
- Nokia wonders about a UE e.g. in CELL_PCH state, which already informs the network at every cell change and report measurement results on RACH, what in addition is needed ? DT points out that e.g. location information is missing.
- Ericsson thinks URA_PCH could become quite common. Ericsson would prefer to have the PCH state covered.
- Nokia wonders what we are logging ? Can we e.g. not append location information to the cell update message ? DT thinks we should have the complete IDLE MDT handling.
- Nokia thinks that if we have logging in PCH states, will we have a "log available indication" in every cell update message ?
- LG wonders how we handle OOS in CELL_FACH state, if we would decide to cover OOS ?
- QC wonders if we have no LOG_MDT for FACH, does this mean no MDT in FACH ? DT assumes we can exclude MDT in CELL_FACH. Vdf is ok not to have it in FACH, since it should be a transitional state.
- QC would like to have one more meeting to decide on FACH. DT thinks we should decide now for Rel-10.

Agreements (Rel-10):

- Will support LOG_MDT in PCH states, but not in FACH state.
- So will have no effort to have any MDT support in CELL_FACH state.

Can discuss if this requires more possibilities to signal a log availability indication for UMTS.

Event triggered reporting ?

R2-104928: Positioning information as trigger for MDT measurement collection NTT DCM Disc

- Nokia wonders whether the logging is only done when the location info is available ? Yes.
- Chairman wonders if this would lead to continuous logging if you have an applicable that knows continuous application (need prohibit timer) ? NTT DCM thinks this depends on the MDT periodicity.

- Samsung wonders if this means that MDT should be configured whenever an LCS session is configured ? NTT DCM thinks it is up to the operator when to configured MDT.
 - Nokia wonders if this is a kind of optimisation for avoiding measurement logging in case of no location information available ?
 - DT thinks the basic idea is quite interesting and could be a new trigger.
 - NTT DCM agrees that if you have very often an accurate position, we would need some prohibit timer.
 - Ericsson wonders whether the periodicity of the logging will now be based on how often you have a location ? NTT DCM clarifies we have no periodicity: it is event based.
 - Samsung wonders if this is really event triggered ? Normally for event based triggering you have a cell meeting an event and you move the cell to the cells_triggered list. But here we have an external trigger determining when to log.
 - DT sees benefits of the proposed mechanism.
 - Ericsson wonders if this is only for GPS based positioning ? NTT DCM clarifies the proposal is not limited to GNSS based positioning, but the positioning could be obtained by any means. In IDLE, typically only stand-alone GPS would be available. NTT DCM Clarifies this proposal is for both LOG_MDT and IMM_MDT.
 - Huawei wonders how the network can ensure there is sufficient measurements with location information available ?
 - DT wonders if fingerprint info is considered valid positioning information ? NTT DCM indicates "no"
 - Motorola wonders what "an update of location information" means ? Does this mean a change to a certain extend. NTT DCM clarifies they mean that updated location information is available (amount of location change is not important).
 - Nokia wonders if any new information is really obtained by this compared to the periodic logging ? NTT DCM explains that it is very important that the coverage map is accurate (e.g. not less than 50m accuracy). Otherwise the MDT results are not useable. So NTT DCM thinks this approach is even more important than normal periodical.
 - Vdf supports the proposal.
 - STE points out that when logging is done, we have agreed "available measurements" should be logged. Does that also apply here. NTT DCM confirms only available measurements.
 - LG thinks an alternative solution is to configure the periodicity smaller with periodic reporting ? NTT DCM thinks this increases the amount of useless logging (logging when no accurate positioning is available).
 - DT thinks an additional intention is to be aware where (what areas) UE's are doing positioning.
 - NSN thinks this is just another alternative, but considering SA2 input, we might not need this in Rel-10. Also we have to indicate impact to SA2 from this meeting. NTT DCM thinks this is the only solution where there is no CN/architecture impact.
 - LG is afraid of the additional complexity for UE in LTE_IDLE and would prefer not to have this in Rel-10.
 - Samsung wonders about the specification impact. Maybe this should be analysed further ?
 - Poll:
 - Support for Rel-10 [10]
 - Not support for Rel-10 [11]
 - Nokia thinks this type of new functionality should only be accepted with large majority.
 - NTT DCM would like to study specification impact by email. Nokia would be ok but we should also analyse real benefit.
 - ALU wonders how this relates to the SA2 LS as an alternative to the CN solution. So maybe we should also see the specification impact of those. Can be discussed based on other contributions.
- => **EMAIL DISC NTT DCM** for one cycle to show clear benefits compared to only periodic logging, and to show specification impact. Can also discuss proposal from R2-104667.

R2-104666: Event triggered logged MDT measurement NTT DOCOMO, INC. Disc General

- LG would prefer to keep it simple and only have periodic, and maybe optimise the log contents if there is concerns on the size. Periodic measurements should be fine for most cases and this should not be needed.
- Nokia assumes periodic logging is sufficient for Rel-10. Then we can see in Rel-11 what optimisations we really need.

- Chairman wonders if these proposal are not going against the previous document of location info availability ?
- Mediatek thinks we should really keep in simple in Rel-10, and then for Rel-11 we can see if we want to further improve.

Serving cell becomes worse than threshold

- Samsung thinks this is an optimisation to limit "unnecessary" logging.
- Motorola supports the proposal. Vdf supports this proposal.

Cell reselection

- Samsung wonders what the need for this trigger is ? It would at least already be covered by proposal 1 if we would have that. Samsung would prefer simplicity.

Proposal 4:

- STE assumes this level of detail can be left to implementation.

=> Apart from the location info available based trigger discussed with the previous document, other event based triggers are not considered for MDT in Rel-10.

- R2-104764: Support of event trigger 'serving cell becomes worse than threshold' in logged MDT
Research In Motion UK Limited, Vodafone Disc
- R2-104908: Consideration on UE measurement log about random access failure in MDT for 1.28Mcps
TDD TD Tech Disc
- R2-104916: Consideration on the UE log about broadcast channel failure in 1.28Mcps TDD TD Tech Disc
All 3 Tdocs not treated

Other

- R2-104667: Logged MDT report model NTT DOCOMO, INC. Disc
- Nokia wonders on the model 2: in case of you have location and radiomeas, you include timestamp twice ? NTT DCM confirms.
 - Kyocera wonders how the network would associate radio measurements and UE speed ? Network would have to estimate the route of the UE.
 - Chairman wonders if we still need this if we have the location info based trigger ? NTT DCM thinks it could still be usefull, so that sometimes only location info is logged.
 - Samsung wonders how RF-fingerprint is used in the second model ? NTT DCM considered it part of the radio measurements. Anyway this can be worked out in stage-3.
 - So main proposal is that location information and radio measurements are logged independantly, whereas so far we have assumed they are logged together.
 - DT sees no strong need for separation. Nokia also does not see strong argument.
 - In model 1, Nokia assumes it is always the latest measurements, and the radio performance requirements will indicate a max delay. NTT DCM is now not addressing radio measurement validity but location information validity.
 - Ericsson sees some benefits for model 2. It might even make the location info available trigger unnecessary.
 - Huawei wonders in model 1, whether UE standalone positioning is supported ? NTT DCM sees no problem.
- => Not much support but can discussed as part of the location info email discussion. EMAIL DISC
- R2-104838: MDT timer handling details LG Electronics Inc. Disc
- CATT supports all the proposals. These proposals are in line with the made agreements
- => Reconfirm that both timers (duration/48hours) are not stopped due to RAT change, going out of measurement area or state transition. No need to change TS since we will not list all cases when you do not do something.
- R2-104841: Log handling during UE power off LG Electronics Inc. Disc
- Kyocera thinks there might be critical data in the log, and would prefer storing the data when switched off.
 - QC supports the proposal. E.g. maintaining validity while switched off is not so easy.
 - Vdf thinks it is just a bit unfortunate when the UE is switched off, but we can live with loosing the log in this case.
 - HTC wonders about the certain reject cases e.g. "illegal ME". Seems very exceptional case, no need to optimise ?
- => When the UE is switched off, all MDT related configuration/logging shall be removed by the UE.

R2-104842: MDT log size issues LG Electronics Inc. Disc

Proposal 1,2,3:

- NTT DCM wonders why the size needs to be limited to 1 RRC msg ? Nokia would like to avoid segmentation in RRC. Additional reason is UE memory size.
- CATT wonders whether we need more than 1 RRC msg if proposal 2 is not met ?
- Nokia thinks both proposal 1,2 and 3 limit the size to 8188 so that existing user plane can be used.
- LG thinks there might be ambiguity if there is segmentation. Then we would have to indicate "end of logged data" in a message. NTT DCM thinks we could include a Sequence Number.
- CATT thinks first thing to discuss is logged size. So we should do more detailed size analysis before deciding. Should also have the stage-3 details of the report.

=> Expect to specify a memory limit.

Proposal 3

- ALU wonders if we have a memory size limit, will all UE's have to support this memory size.

Agreements:

- 1 We will specify a memory size limit for MDT logging that all UE's supporting LOG_MDT shall support. FFS if more memory is allowed to be supported (might e.g. depend on transport mechanism we agree).
- 3 In case MDT log volume grows up larger than the available UE memory, the UE stops logging (i.e. stop duration timer, start 48hour timer).

More analysis is needed w.r.t. suitable memory size value.

R2-104308: Removing Logged MDT configuration and log in PLMN change HTC TP37.320

- DT thinks it is important to clear the log even within ePLMN change, and would like to keep this.
- NSN thinks the previous agreement was simpler: with the new proposed formulation, we could change PLMN without changing the rPLMN.
- Teliasonera thinks for shared networks it might be good to not clear. DT thinks we agreed this in the last meeting.
- DT thinks we explicitly agreed that as long as the PLMN selected by the UE is broadcast, you do not clear the log, but otherwise the UE should clear the log.
- STE wonders what the problem is with the proposed modification ? DT would like to clear the log when you move to a cell which only broadcasts ePLMN's (and not the rPLMN).
- DT thinks we agreed at every PLMN selection, and if you change between ePLMN's you clear.
- Intention is that when the UE camps on a cell not broadcasting the PLMN which was the rPLMN when the UE received the MDT configuration (even regardless of ePLMN), the UE clears the configuration.

Allow some offline to see if we should clarify the concerning sentence in the stage- 2

- People seem fine with the CR but with keeping the remark about the ePLMN
 - NSN thinks maybe we should stick to this change and think more about the ePLMN case.
- => Noted (seems clear there is some work to consider detailed aspects)

R2-104370: Additional GNSS Information for MDT report NTT DOCOMO, INC., NEC Disc

- Nokia thinks this was discussed before (SI phase) and we agreed it is not needed. NT DCM thinks this is needed to make the information usable by the network.
- Samsung thinks the shape list is not complete, e.g. indoor case is missing.
- CATT thinks the RF Fingerprint can be used as uncertainty indication. NTT DCM thinks we have agreed that when we have the more detailed position, we do not include the fingerprint. CATT agrees we would need to change previous agreement for this.
- Ericsson assumes the information is available so why not use it ?
- Samsung thinks if the network configures a max uncertainty, then the UE can know when to report/not report and we do not have to report the accuracy. LG agrees: it seems better to have UE filtering. NTT DCM thinks UE implementation would be simplified by just reporting.
- NTT DCM clarifies the uncertainty is up to 1800 km.

- NSN thinks having this configured to the UE brings more complexity, so it seems better to include it on availability basis.
- Huawei supports inclusion.
- => Noted (quite some support). Can lobby for one more meeting

R2-104670: Definition of time stamp information Huawei,CMCC Disc

Proposal 1

- NTT DCM might in the future come with a 100ms accuracy proposal but is ok to take this decision now.

Proposal 2:

- NSN wonders is "day" is really needed ? Huawei thinks you have to know whether the log was made e.g. today or yesterday. Samsung indicates that also the 48hours is a reason to log the "day"

Proposal 3:

- STE thinks we can leave this to the network vendor: it could be transparent contained not understood by the UE, and we just have to agree on the size.
- NTT DCM wonders how often the timestamp information is included ? When it is periodic, we only care about the starting time and the periodicity.
- Nokia wonders why we even give the absolute time to the UE ? Ericsson indicates that it could be another network entity starting the MDT. Vdf points out that we wanted consistent timing information
- STE withdraws comment on transparent because it might not work in inter-vendor cases.
- Vdf thinks there is no need to optimise the encoding since it will not be frequently included.

Agreements:

- 1: The time information in the logged MDT reports is at seconds level.
- 2: There is no need to include the year and month fields of the absolute time stamp in the MDT log files.
- 3: Format will be: DD HH-MM-SS
- 4: The absolute time stamp for logged MDT is the current network time when MDT is configured for the UE.
- 5: The relative time stamp is counting in seconds from the moment the MDT configuration is received at the UE.

R2-104532: Time stamp Improvement for Logged MDT CATT Disc

R2-104300: Logged MDT reporting indication in mobilityHTC TP37.320

R2-104530: Blacklist in log MDT CATT Disc

R2-104813: Inter-RAT MDT data retrieval and MDT (re)-configuration Kyocera Disc

R2-104815: MDT log retention Kyocera Disc

R2-104839: Optimizations for log size reduction LG Electronics Inc. Disc

All 6 Tdocs not treated

Too late/not available/withdrawn

R2-104297 Considerations on UE mobility for Logged MDT CHTTL, HTC Disc

R2-104321 Retrieval of time split logged MDT measurements CHTTL, HTC Disc
Both not treated

R2-104467 Logged MDT in UTRAN States Nokia Siemens Networks, Nokia Corporation Disc

R2-104468 Logged MDT in UTRAN States Nokia Siemens Networks, Nokia Corporation Disc
=> Both are withdrawn

R2-104668: Logged MDT report during handover NTT DOCOMO, INC. Disc
not treated

R2-104826 Defining signalling message for MDT log retrieval Samsung Disc
withdrawn

R2-104833 Clearing logs at PLMN change Samsung Disc
withdrawn

4.3.1.3 Stage-2: Immediate MDT

Context transfer at handover

R2-104675: Principles for immediate MDT context handling Huawei Disc

Proposal 1:

- Samsung wonders whether management based trace function can configure area scope ? Huawei assumes this is possible. NSN agrees, and the area scope will be distributed to involved RNC's/eNB's.

Proposal 2:

- ALU wonders what happens if we pass eNB's that do not support MDT, or are from a previous release. ALU assumes RAN3 will have to look at that.

Proposal 3:

Agreements for IMM_MDT:

- 1: The MDT configurations configured by management based trace function will not propagate during handover.
- 2: The MDT configurations received from signaling based trace messages for a specific UE will propagate during handover if immediate MDT is chosen by RAN.
- 3: The measurements configured in the UE for MDT should fully comply with the transferring and reconfiguration principles for the current measurements configured in the UE for RRM purpose during handover. (conform Rel89)

R2-104850: Signalling and procedures for area scope MDT measurements NTT DOCOMO, INC. Disc

R2-104903: Immediate MDT handling during HO Nokia Siemens Networks, Nokia Corporation Disc

R2-104760: MDT configuration and capability handling Alcatel-Lucent Disc

R2-104540: Handling of Immediate MDT Measurement during HO CATT Disc

All 4 Tdocs not treated

Location info provisioning

R2-104674: MDT location control and correlation Huawei Disc

R2-104789: NW based positioning for immediate MDT Ericsson, ST-Ericsson Disc

-

Status:

For UMTS:

- A) RAN can already force UE to position
- B) add "report available location information" for MDT (already agreed)

For LTE:

- B) add "report available location information" for MDT (already agreed)
- C) do we need improved location inclusion ? Options include:
 - 1) RAN impact: E-UTRAN as LCS client
 - 2) RAN can force UE to provide position
 - 3) CN control (e.g. MME triggers E-SMLC when starting MDT)

Discussion

- Samsung wonders if network based solution would increase the overhead on the radio ?
- Ericsson thinks network can always trigger positioning by itself, i.e. also not related to MDT. Ericsson thinks we could indicate to other groups that CN coordination could be useful.
- NTT DCM wonders how we can ensure that the obtained location information can be correlated to the MDT measurement results ? Ericsson thinks the MME can do this coordination as shown in figure 1.
- Huawei thinks CN coordination can only be used for signalling based trace, not for management based trace. For management based trace the eNB should be the LCS client.
- Ericsson thinks the indicated solutions based on existing functionality could be enough for Rel-10.

- NSN does not see a strong need for eNB as LCS client. It seems to late for this type of change and LCS WI is closed. NSN would prefer to re-use existing options as much as possible, but assumes the proposals from Ericsson are probably also to late for Rel-10.
 - Huawei thinks SA2/SA5 have confirmed eNB as LCS client, so why not consider this solution ? NSN thinks only possible for later release.
 - ALU agrees in general that MDT measurements without location are not so usefull.
 - CATT thinks best-effort location reporting is sufficient for Rel-10. NSN agrees: for first release best effort location reporting in IMM_MDT should be sufficient.
 - Huawei does not see much complexity for eNB as LCS client: only 2 messages to S1 need to be added.
 - NTT DCM thinks if we would accept location-information-available-triggering also in immediate MDT, we might be ok.
 - Huawei thinks eNB as LCS client does not necessarily mean more UE power consumption for all UE's.
 - After offline discussion, no agreement on a way forward. Huawei wonders if there is any clear requirement. DT thinks the best effort approach is sufficient. Nokia agrees. NTT DCM thinks forced location information is important, but is unclear whether in Rel-10 we should really try to achieve this. Ericsson thinks if other groups can do simple things they might as well do it, but we do not have to decide. Huawei suggest an LS to SA2. NSN thinks we should stick to best-effort in Rel-10. DT thinks anyway SA2 would not be deeply involved.
 - Poll:
 - A) Can live without forced position info for LTE IMM MDT [11]
 - B) Being able to force positioning for LTE IMM MDT in Rel-10 is essential [1]
- => RAN2 will not do any enhancements to get forced positioning in Rel-10.

RLF enhancements:

- R2-104507: Enhancements for RLF reporting Deutsche Telekom, NTT DOCOMO, Nokia Corporation, Nokia Siemens Networks Disc
- R2-104671: UE Radio Link Failure Huawei, China Unicom Disc
- R2-104767: Availability of GNSS location information in RLF Research In Motion UK Limited Disc
- All 3 Tdocs not treated

Other:

- R2-104676: UE RACH failure reporting Huawei, China Unicom Disc
not treated

Too late/not available/withdrawn

- R2-104672 MDT location control and correlation Huawei Disc
- R2-104673 MDT location control and correlation Huawei Disc
- => both Tdocs are withdrawn

4.3.1.4 Stage-2: Other

Interaction with trace

- R2-104669: UE Selection & configuration for MDT Huawei Disc
- Proposal 2:
- NTT DCM wonders what "device capability checking" is ? Huawei assumes there will be MDT related AS capabilities, and they are only known by the RAN. Chairman wonders how this works in signaling based trace ? I.e. will it happen that the CN selects a UE, but the RAN rejects the trace because the UE does not support MDT ? Huawei assumes this is possible. ALU sees two options: either RAN rejects, or bring the capability to MME, but ALU is fine with this assumption.
 - Vdf was assuming that OAM would know which UE's are MDT capable. ALU indicates this capability would have to be tied to IMEI, not IMSI.
- Bullet 12:
- NSN wonders why RLF trace would be limited to signalling trace. NSN would like to formulate this bullet more general e.g. "it is FFS which trace functionality will be able to cover the RLF reporting". NSN thinks RAN2 should work further on this RLF case.
- Other:
- TIM wonders whether on the radio, the UE is aware whether the MDT it is performing are for signalling based trace or management based trace ? I.e. is there are radio impact ?

- NSN also thinks that from radio/UE point of view, it is not relevant whether some MDT is configured by the network because of signalling/management based trace. We should just make sure all radio functionality can be used in a system concept.

RAN2 understanding:

- 1) IMSI and IMEI based UE selection is done at OAM.
- 2) Device capability selection/checking is done by the RAN ?
- FFS if a signalling based trace is started for a UE not supporting MDT, there will be "reject feedback" to the OAM.
- 3) For immediate MDT, RAN chooses to configure UEs or not, based on geographical area, if provided.
- 4) For Logged MDT, UE implements geographical area checking and RAN checking of geographical area may be relaxed or optional.
- 5) RAN do not need to know about IMSI and/or IMEI.
- 6) OAM do not need to know about UE capabilities or other device specific information for MDT. (related to bullet 2)
- 7) Geographical Area Information Need to be provided from OAM to RAN at MDT trace configuration.
- 8) For logged MDT in Idle mode, Geographical Area Information Need to be provided from RAN to UE at MDT measurement configuration.
- 9) For cases when OAM selects individual UEs, i.e. when IMSI and IMEI based UE selection is used, signalling based trace is used.
- 10) For cases when OAM does not select individual UEs, management based trace is used.
- 11) As a baseline assumption, all measurements, immediate MDT and Logged MDT shall be supported by both signaling based trace and management based trace

=> Will sent LS to SA5 to check if the above RAN2 understanding is correct in R2-104960. No need to capture any of these bullets for this now in the TS.

R2-104678: Text proposals to 37.320 to address SA5 progress Huawei Disc

- ALU wonders about the mode (IMM/LOG) selection ? Will OAM have no influence and it is complete RAN decision ? Huawei thinks SA5 agreed that OAM will not distinguish whether an MDT configuration is for immediate or logged MDT.
- Huawei thinks this is clear from the SA5 response. Ericsson understood that OAM would determine the mode.
- Huawei wonders if mode selection by RAN is not clear from the incoming LS. Ericsson assumes this was only related to the data collection itself.

=> Will ask SA5 in the above LS whether it is correct that the mode selection is completely up to RAN.

=> Text proposal for 5.1.x can be included in the TS (R2-104950).

R2-104904: MDT Configuration Parameters Nokia Siemens Networks, Nokia Corporation Disc

- DT has the same high level understanding of how this should work. Ericsson has the same understanding.
- DT is uncertain about the trace ref inclusion. Ericsson thinks the details can be discussed further for one more meeting.
- NTT DCM is not sure about IP address of TCE.

=> We assume we do not need to inform the UE about any trace related information for immediate MDT. For logged MDT we are considering to inform the UE about trace-ref/IP add of TCE so that RAN node where reporting is done can forward the information correctly. Ask SA5 whether this is good approach. Will be included in LS in R2-104960

R2-104677: The identity of a MDT task Huawei Disc
not treated

Other

R2-104917: MDT support for roaming NTT DOCOMO, INC. Disc

R2-104679: UE capabilities and resource information for MDT UE selection Huawei Disc

R2-104800: UE capabilities for MDT Ericsson, ST-Ericsson Disc

All 3 Tdocs not treated

4.3.1.5 Stage-3

Contributions related to stage-3 aspects can be submitted under this agenda item. When examining submitted contributions VC/Chair will determine whether contributions are best handled in joint session or separately in UMTS and LTE sessions.

- R2-104919: Draft CR to 36.331 on MDT introduction Nokia Siemens Networks TP 36.331
- HTC thinks we have not discussed presence of the indicator in the re-establishment procedure. HTC thinks it is enough with the presence in the first reconfiguration message. NSN points out this is explicitly mentioned in the TS.
 - DT thinks we should try to keep stage-3 as much as possible aligned for UMTS/LTE.
 - DT wonders if we have agreed on the name "IDLEModeReconfiguration" ? Seems misleading
- => Will have 2 email discussions (one for LTE, one for UMTS) to ensure we have non-contentious baseline stage-3 CR's available at the next RAN2 meeting EMAIL DISC NSN up to 2 weeks before the meeting.

Continuation up to next meeting

- R2-104950: Rapporteur update of TS37.320 (v0.7.1)
- Including all stage-2 agreements from this meeting (unless indicated explicitly as not to be captured)
- => Latest agreements on logging in different states still needs to be added
- => Huawei thinks the agreement on no need to bring the UE to connected from the network should be captured.
- => Will go for 1 week approval. By the end of the week, the TS should be approved as v1.0.0 in R2-105238.
- EMAIL DISC on location information trigger
EMAIL DISC on neighbour logging configuration
EMAIL DISC (2*) on stage-3

Continuation: Next meeting, create agenda item in LTE & UMTS session for RAT specific aspects (discuss) ? E.g. RLF/RACH enhancements for LTE, log availability indication in UMTS,..... stage-3 CR. However note that it is really important to minimise the differences as much as possible !

4.3.2 Machine type communications (SI: RP-100330)

(FS_NIMTC-RAN, leading WG: RAN2, started: Sep.09, target: Dec. 10, SID: RP-100330)

4.3.2.1 TR Corrections

Proposals from rapporteur to correct/improve TR 37.868 shall be submitted under this agenda item. Also proposed non-contentious corrections to the TR can be submitted here.

No contributions.

4.3.2.2 RAN overload

RAN2#69b identified RAN overload control as the first priority improvement area. RAN2#70 agreed that we should study RAN mechanisms that can ensure no significant impact to H2H traffic with any realistic M2M load. Should try to finalise capturing current RACH capacity for the different RAT technologies (including impact to H2H traffic), and try to move forward with comparing different overload handling solutions.

=> Including email outcome for [70b#11] - LTE: MTC LTE simulations (ZTE)

Result of email discussion [70b#11] - LTE: MTC LTE simulations (ZTE)

- R2-104663: [70bis#11] LTE: MTC LTE simulations ZTE,CATR Disc
- CATT wonders if HARQ is used for Msg3 and Msg4 ? ZTE assumes so.
 - ALU wonders about inter-cell interference/fading. Where is this interference coming from ? ZTE indicates they have not simulated a real radio environment. So e.g. they have assumed a certain loss rate for preamble transmissions to mimic the interference.

- CMCC wonders about the MTC data arrival in table 1 ? Is the beta also assume for 60s case (CMCC assumes Beta distribution is not needed for this case) ? ZTE agrees that uniform distribution might be sufficient for 60s case.
- Chairman would like to limit discussion in meeting on simulation assumptions. We should discuss how we want to continue without impacting meeting time to much. ALU assumes more discussion is needed, e.g. on inter-cell interference modelling, and PDCCH modelling. ZTE thinks we should be sensible and not continue the exercise forever. ZTE thinks we could possible agree on the RACH results, combined with the ALU results for the 60s case. ZTE proposes to focus on the RACH results and maybe drop the application level simulations.
- Huawei would like to take one more cycle for the simulations.
- Ericsson thinks the simulation assumptions we have collected so far are already too complex. We should not over specify. E.g. the addition of VOIP UE's has not added much relevance to the simulations. It has just made the simulations more fuzzy.
- ALU assumes PDCCH load will directly related to RACH load. Ericsson thinks PDCCH load will be mainly impacted by the amount of traffic in the MTC session and the additional load from other sources, and we do not have good/reasonable estimates for this.

Proposal 0: focus on RACH, and drop application level simulations for now.

- Huawei is ok to lower priotise but would prefer to continue this effort. ALU agrees it is important to continue e.g. to model impact on H2H traffic. In principle ZTE thinks H2H traffic influence is important in principle, but at least on RACH there is little influence (low load) so we can remove from the RACH simulations. If we have an outcome for the RACH results on MTC, and M2M has the same experience we know the results for H2H.
- ALU thinks interference due to H2H traffic could influence the result.

Proposal 1 (RACH parameters from table 2.1-2)

- Ericsson assumes VOIP call arrival rate can be removed ? ZTE is ok. ZTE assumes removal of VOIP does not change the RACH results so they can still be included.
- CATT thinks Msg3/4 details should be included. Also details on msg loss should be included. Huawei would prefer not to include any results before agreeing on simulation parameters.
- Eircsson thinks it is ok to include the results from 2.3.1.1. This is the level we need, and we do not need more details.
- Samsung wonders if distribution over 10s is really relevant ? It should be enough to have the 60s results. QC agrees: 30.000 users with beta distribution seems too high. Ericsson also does not see a direct use case but it shows that we can handle a huge amount of access.
- ZTE assumes we could at least agree on the RACH part. Than companies can stil work together with potentially coming with other results.

=> Will focus on the RACH related simulations. Will drop the application level/PDCCH simulations for now.

=> Will allow one more meeting cycle to come to agreements on simulation parameters for RACH load simulations, and to come with simulations results for LTE, UMTS FDD and UMTS TDD. Offline effort should come with one set of simulation results for LTE, one for UMTS FDD and one for UMTS TDD. **EMAIL DISC HUAWEI** (might e.g. involve telephone meeting) Parameter discussion should continue as much as possible offline during this meeting. Goal is to have one set of results on current system capacity (without enhancements) at the next meeting. Not again discussions at the next meeting.

- What about other simulations e.g. traffic load, system load, impact on H2H traffic, PDCCH load. QC assumes that if we do further work, RAN1 input might be needed e.g. considering RoT impact/acceptable levels.

=> No coordinated action assumed.

R2-104617: RACH Load Analysis for MTC in LTE Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc
=> Revised before presentation in R2-104930

R2-104930: RACH Load Analysis for MTC in LTE Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc
not treated

Simulation results on current system capacity

R2-104661: MTC UMTS simulation results - current performance ZTE Disc

R2-104611: Further Analysis on RACH Capacity for 1.28Mcps TDD CATT, TD TechDisc

- R2-104853: MTC RACH Access delay simulation for 1.28Mcps TDD TD Tech,CATT Disc
=> All 3 Tdocs not treated but all these simulation results are input for offline effort/might required to be updated up to next meeting.

SA2 input

- R2-104719: Priority levels for MTC devices Nokia Corporation, Nokia Siemens Networks Disc
-

- R2-104550: Overload Control for MTC Devices Vodafone Disc
-

Discussion

- CATT wonders what "low priority" means ? Does it correspond to time tolerant MTC ? Vdf thinks low priority is a rough indication indicating devices that could be restricted from access.
 - CMCC wonders if proposal 2 and proposal 6 are counter proposals (different messages) ? I.e. if we have the indication in the request, we do not need the same indication in the complete. ALU thinks the req could only include a "low prio" indication, and the complete message could include more details for MME selection.
 - Huawei thinks this contribution can be seen as kickoff for the work in RAN2. Huawei would like to understand what parts are still open in SA2 and which parts are agreed ?
 - Vdf agrees the whole document is more for information at this stage.
 - DT thinks the load distribution aspect is not important, and SA2 should also not discuss RAN details. RAN2 should focus on the RAN overload issues. Also DT assumes we do not only have low priority devices. DT also does not see a justification for introducing a new AC.
 - ALU understands that RAN2 has to discuss and agree on all final mechanisms, and all mechanisms indicated by SA2 are more or less "examples" of how it could be solved.
 - Vdf thinks the bottom line is we need:
 - device class indication
 - low priority for MTC, and visitor handling
 - NTT DCM assumes RAN2 has some freedom. But e.g. access classes are traditionally defined by CN groups. In principle SA1 first defined the need (e.g. for PPAC,...). NTT DCM assumes first SA1 should agree. Also where is the AC defined ? Does it correspond to services (change dynamically), is it in the USIM (then CT6 should be involved),... ?
 - DT is really puzzled by the detailed SA2 proposals and think further evaluation is needed. E.g. why is one priority enough ?
 - Vdf thinks we should realise that RAN2 is only looking at part of the solution, and also other groups are impacted and receive the SA2 decisions. Vdf thinks it is very important that some overload protection makes it in Rel-10.
 - NTT DCM thinks this are service requirements rather than solutions. NTT DCM wonders if any of this can be finalised in Rel-10.
- => Noted; will see what WI is potentially agreed in RAN, and we wait for SA2 LS.

Solution comparisons

- R2-104662: MTC simulation results with specific solutions ZTE,CATR Disc
- LG thinks the BO does not have to be increased to 900ms, but to comparable values like e.g. 4s.
 - NSN thinks it is clear that something making the 10s comparable to the 60s case would solve the issue. So if BO would apply to the first transmission could reduce the load then this should help.
 - NSN thinks if we want to reduce the load e.g. by 1/6th, we should not have probability factor of 0.5
 - ALU points out that not all options are simulated here, e.g. slotted cases is not simulated. ALU thinks the slotted case will show much more gains. QC wonders if the network needs to know the MTC traffic for paging for the slotted case ? ALU clarifies in the slotted case, UE's randomly pick an id and occasion (everything random). In addition, the operator could assign resources to specific UE#'s.
 - Chairman wonders if RACH optimisations help a lot if there is more traffic per MTC session (probably then the PDSCH/PUSCH/PDCCH will be the limit). Ericsson also understands that the RACH does not need to be optimised so much since other limits are

reached earlier or very soon after. This would mean we only need general load control, and not RACH specific.

- Samsung thinks that if we increase the PRACH capacity, we will get more problems for other channels.
 - ZTE thinks it would be good to work in 2 directions:
 - 1) What mechanisms do we need to protect the RAN for overload.
 - ZTE assumes if this is the only goal, then e.g. introducing one ACB might be sufficient
 - 2) How to obtain decent MTC performance
 - for this we might consider additional mechanisms liked slotted access, dynamic RACH,...
- ZTE wonders if this is the general understanding ? Chairman assumes 1) is first priority, and point 2) can be discussed after that e.g. for Rel-11 Wl phase.
- Huawei wonders which of the candidates in the TR fall under bullet 1) and which one under bullet 2) ? ZTE assumes some of the mechanisms are good to protect overload, especially ACB. Since all MTC access can be avoided, it can control overload. However it does not guarantee decent MTC performance and for that we could consider the other mechanisms.
- => Noted (can work further on this).

- R2-104869: Evaluation of RAN overload control improvements for UMTS Huawei Disc
- ALU wonders if there is any results on access delay ? CDF of access delay is not provided.
 - LG wonders if the backoff is only applied to retransmission or also to first transmission on RACH ? Huawei assumes backoff for first attempt is provided by application layer (application level distribution is a kind of backoff).
 - LG thinks BO value not further increased ? Huawei agrees this could be considered.
- => Noted (work can continue)

- R2-104720: Solutions for MTC overload control for LTE Nokia Corporation, Nokia Siemens Networks Disc
- LG agrees the BO can be obtained from RAR, but they could also be provided in SI. NSN agrees.
 - ALU wonders what trigger would be used by the network to trigger MTC access class barring. NSN thinks it could be based on general RACH load or PDCCH load.
 - DT agrees that if we want simple solution for overload, indeed ACB seems simple. But as an operator DT has concerns on having a new AC (e.g. new SIM's). Also one AC seems not enough for MTC.
- => Noted

R2-104348: Latency and Overload Issues for MTC Devices Sharp Corporation Disc

R2-104659: Access priority of MTC ZTE, CATR Disc

R2-104890: Access class barring design for MTC Samsung Disc

All 3 Tdocs not treated

Additional solutions

- R2-104870: Pull based RAN overload control Huawei, China Unicom Disc
- CATT supports the proposal; CATT thinks this is an efficient way to spread the load for time-tolerant MTC services
 - NSN wonders how realistic it is that there are no collisions ? Huawei thinks this can be achieved if the devices are paged one by one. Chairman wonders if the results from fig 1&2 could be obtained by Rel89 networks by individual paging ? Huawei confirms.
 - DT wonders if pull based approach can cover all MTC cases ? DT assumes e.g. alarm applications cannot be covered by pull based approach ? Huawei thinks push and pull are complimentary approaches.
 - QC wonders if eNB that coordinates the paging, has to know the traffic pattern of the different MTC services ? Huawei thinks not all details need to be known by the eNB, but the CN or the MTC server could provide this. This can be further considered in stage-3. ZTE thinks this would have stage-2 implications. So ZTE thinks if we go this way, it should be discuss with/in SA2 to ensure it is in line with MTC architecture.
 - QC thinks pull based is not supported by current architecture since there is no interface between application and eNB. Ericsson thinks pull based solutions are in principle already

supported if the server is able to know when there is data available in the UE. Ericsson thinks it is a valid mechanism and it is supported today.

- Ericsson thinks with group paging we lose the benefits of pulling because we do not know where all the UE's are and thus how the response load will be.

=> Add short (one paragraph) description for "single UE" pull based solution

R2-104501: Overload Control for Machine Type Communication Deutsche Telekom Disc
Proposal 1/3:

- Vdf wonders how the scaling factor works ? DT thinks it would be used to multiple the broadcasted ACB parameters with.
 - Vdf wonders how we scale the UMTS yes/no broadcast ? DT agrees this should be considered since real scaling is difficult.
 - Vdf wonders if we have millions of devices, why have UE specific control rather than broadcast control. DT agrees that broadcast to a group of UE's of the scaling factor (e.g. all gas meters). Then the control would be per group of UE's.
 - Vdf wonders if we use the normal ACB and we want to barr, then we would also barr the normal UE's at least to some extent.
 - ZTE thinks this is a kind of alternative mechanism for having something like access classes ("MTC groups"). We would need some further clarification on how this really works.
 - DT thinks this proposal is not only for MTC devices but e.g. also for smart phones. You could barr an individual UE.
 - Chairman wonders if one UE would only be low priority MTC, or high prio MTC or H2H, or can this vary in time ? DT assumes this can vary in time at least within MTC services.
 - NTT DCM wonders whether the UE's have USIM inside ? If they have e.g. AC 11-15, will all access be high priority, or could still be low priority MTC ?
 - ZTE thinks there are two proposals in this document: UE individual and group based.
 - Ericsson wonders if this is an overload protection function or a policing function ? Ericsson thinks this seems more like policing function. DT thinks the policing is just providing additional benefit.
 - NTT DCM thinks ACB and this proposal are the same: in both cases the type has to come from some NAS layer. DT thinks this allows more differentiation.
- => Can discuss offline if a description of the solution in short paragraph is possible. Result of offline discussion reflected in R2-105215

R2-105215: Overload Control for Machine Type Communication Deutsche Telekom Disc

- Huawei would like more time to check
 - Vdf has a concern about the extension to UMTS. This extension seems a bit unclear. DT agrees that probability barring is not intended to be introduced in UMTS.
- => Last paragraph should be removed (seems different solution)
- => ZTE thinks with the current explanation it is not really clear how the group handling is done. Can mark grouping part as FFS.
- => Panasonic thinks it would be good to simplify a bit more, like for other solutions.
- => Ericsson proposes to only capture the paragraph under 5.1.6
- => Can work until next meeting to come short text description and further information

R2-104610: Text Proposal on possible solution for RAN overload control CATT Disc

R2-104873: Comparing Push and Pull based Approaches for MTC Institute for Information Industry (III), Coiler Corporation Disc

R2-104544: Telematics reporting and UL synchronisation maintenance Alcatel-lucent, Alcatel-Lucent Shanghai Bell Disc

R2-104878: Group paging for MTC devices LG Electronics Inc. Disc
All 4 Tdocs not treated

Other

R2-104658: Rach congestion cases ZTE Disc

- CMCC wonders if the application suggested here is a realistic application ? CMCC would assume a concentrator would be used in this type of deployment, and only the concentrator has a radio interface. ZTE assumed that with 10 sensors/squarekm, concentrators are taken into account.
- ZTE thinks the main question is whether we want to cover this type of very high load scenario in the TR ?

- LG thinks with 5-10s distribution, we could still handle this type of load. 5-10s delay might be ok for earth quake scenario. ZTE assumes every second counts.
 - ZTE thinks we could reduce the description further, but the essence is to highlight that there are scenario where you cannot distribute.
 - ALU thinks there is some value in also having this type of scenario included. Panasonic supports
- => Will do effort to come to small description of this type of high load where distribution is difficult/not possible in R2-104962 => Updated before presentation in R2-104999

R2-104999: Rach congestion cases ZTE Disc
=> Agreed to be included in the TR

R2-104551: Identification of MTC Devices CMCC Disc
not treated

4.3.2.3 Other MTC related improvements

Efficiency

R2-104821: RAN signaling congestion aspect SamsungDisc

-

R2-104887: Efficiency issue for MTC Huawei, CMCC, China Unicom, Intel Corporation (UK) Ltd., CATT, TD Tech Disc
=> Updated in R2-104951 (only because of additional cosigners)

R2-104951: Efficiency issue for MTC Huawei, CMCC, China Unicom, Intel Corporation (UK) Ltd., CATT, TD Tech a.o. Disc
-

Discussion

- ZTE would welcome this type of investigation. ZTE thinks if we want to study this, we really need to agree on an MTC traffic model because that will be crucial for evaluating this type of proposal.
 - LG thinks it would be good to start discussing this issue.
 - ALU also thinks it would be good to start discussing this. ALU assumes that some solutions will impact other groups like SA2.
 - IPW supports including material on this.
 - Ericsson wonders if the validating is supposed to be limited to MTC or to any small data transmission ? Huawei assumes with the current SI, we have to focus on MTC. Ericsson assumes that all steps we decided to introduce for Rel-8 LTE small data transmissions would also be applicable for MTC. NSN agrees with Ericsson; we have the overhead for a reason. NSN does not want a blank card for Rel-10 for changing the approach.
 - QC is concerned about changing protocol overhead of UP. So we redesign PDCP/RLC/MAC ? Huawei would first like to study solutions and see what is proposed.
 - Samsung thinks the number of signalling messages is important. Samsung assumes that even if data volume increases, still this overhead will be relatively large.
 - CMCC thinks for the protocol overhead there is not much improvement space. CMCC thinks the signalling overhead issue is interesting to study.
 - Samsung is fine to not capture anything in the TR at this stage and can capture from the next meeting if solutions are provided.
 - Ericsson thinks connection setup and overhead is already very efficient for LTE.
 - Huawei thinks signalling efficiency is an important issue.
- => Will focus on overload control. Further inputs can be provided on this topic but will be handled with lower priority than RAN overload control.

Other:

R2-104889: Power saving enhancement for MTC Samsung, LGE Disc

R2-104560: Extension of paging cycle for MTC LG Electronics Inc., Samsung ?

R2-104612: Consideration on MTC monitoringCATT Disc

R2-104561: PWS-like Broadcast for MTC LG Electronics Inc.Disc

R2-104562: RRC Connection Release for MTC DevicesLG Electronics Inc.Disc
All 5 Tdocs not treated

Continuation up to next meeting

- R2-104963: Rapporteur update of TR v0.5.1
=> R2-104999 seems to be missing
=> Ericsson would prefer to have a clear split in the description in what is already possible today, and what functionality requires further extensions.
- NEC wonders if we are allowed to talk about group based paging ? Vdf thinks this is just SI so we can include for possible later releases. Huawei would also like to keep group based paging in .
=> Will go for email approval (1 week). Final version v0.6.0 will be provided in R2-105246

EMAIL DISC on RACH simulations/offline during this week on RACH simulation parameters (HUAWEI). Current status of the RACH simulation assumptions can be found in R2-105212. Intention is to come with one set of results.

4.3.3 Other

- R2-104486: Adding Support for Explicit Congestion Notification Qualcomm Incorporated CR 25.323 (0321) -B REL-10 TEI10 not treated

Too late/not available/withdrawn

- R2-104485 Adding Support for Explicit Congestion Notification Qualcomm Incorporated Disc REL-10 TEI10 withdrawn

5 LTE Release 8

(LTE-L23, leading WG: RAN2, REL-8, started: Sep. 06, closed: Dec. 08, WID: RP-080747)

5.1 In principle agreed CRs

- R2-104273: Correction to 3GPP2 reference for interworking with cdma2000 1xMotorola, QUALCOMM Incorporated CR 36.331 0439 - F REL-8LTE-L23
=> CR is agreed
R2-104274: Correction to 3GPP2 reference for interworking with cdma2000 1xMotorola, QUALCOMM Incorporated CR 36.331 0440 - F similar change as for R2-104273 but slightly different therefore cat.F instead of A was used REL-9LTE-L23
=> CR is agreed

5.2 Other

- R2-104483: Description of multi-user MIMO functionality in feature group indicator table Panasonic CR 36.331 (0453) - F REL-8LTE-L23
- Ericsson wonders if impact analysis is correct ? A network would not configured TM5 if the UE does not support MU-MIMO. Panasonic thinks the impact analysis is correct, but it would be strange network behaviour to use TM5 for tx diversity.
=> CR is agreed in R2-104965 CR0453
R2-104494: Description of multi-user MIMO functionality in feature group indicator table Panasonic CR 36.331 (0456) - A REL-9LTE-L23
=> CR is agreed in R2-104966 CR0456
R2-104604: Correct the PEMAX_H to PEMAXCATT CR 36.304 (0137) - F REL-8LTE-L23
- Ericsson agrees to the correction, but the category should probably be D on all 4 CR's ? NSN thinks category is ok. If RAN4 changed the name we should also change it.

- DT thinks no CR is needed for Rel-8 category F CR. CATT indicates the name was changed by RAN4 from Rel-8 in the last RAN plenary.
- => CR is agreed in R2-104967 CR0137
- R2-104605: Correct the PEMAX_H to PEMAXCATT CR 36.304 (0138) - A REL-9LTE-L23
- => CR is agreed in R2-104968 CR0138
- R2-104606: Correct the PEMAX_H to PEMAXCATT CR 36.331 (0457) - F REL-8LTE-L23
- => CR is agreed in R2-104969 CR0457
- R2-104607: Correct the PEMAX_H to PEMAXCATT CR 36.331 (0458) - A REL-9LTE-L23
- => CR is agreed in R2-104970 CR0458

Too late/not available/withdrawn

- R2-104490 Description of multi-user MIMO functionality in feature group indicator table Panasonic CR 36.331 (0455) - A REL-9LTE-L23

6 LTE Release 9

6.1 Positioning Support for LTE (RP-091389)

(LCS_LTE, leading WG: RAN2, started: Dec. 08, closed: June 10, WID: RP-091389)

6.1.1 In principle agreed CRs

36.305

- R2-104271: Corrections on LPP session identifier in Stage 2 HTC CR 36.305 0018 - F REL-9 LCS_LTE
- => CR is agreed

36.355

- R2-104283: Addition of an EPDU to an LPP Error and LPP Abort Qualcomm Incorporated CR 36.355 0024 - F REL-9LCS_LTE
- => CR is agreed
- R2-104284: Clarification of slotNumberOffset for OTDOA Nokia Siemens Networks CR 36.355 0025 - F email discussion [70b#03] REL-9LCS_LTE
- No change from last meeting, but there is a related document in R2-104773
- => Noted (will comeback next meeting)
- R2-104285: Division of LPP into Separate ASN.1 Modules with a Global Identifier Qualcomm Incorporated CR 36.355 0026 - F REL-9LCS_LTE
- => CR is agreed
- R2-104286: External PDU Identifier Allocations Nokia Siemens Networks, Nokia Corporation CR 36.355 0027 - F REL-9LCS_LTE
- => Will be included in update of R2-104691
- R2-104287: Proposed Corrections to LPP Reliable Transport Qualcomm Incorporated CR 36.355 0028 - F REL-9LCS_LTE
- => CR is agreed
- R2-104288: Proposed Corrections to the PeriodicalReportingCriteria in LPP Qualcomm Incorporated CR 36.355 0029 - F REL-9LCS_LTE
- => CR is agreed
- R2-104289: Various corrections and clarifications to LPP Qualcomm Incorporated CR 36.355 0030 - F REL-9LCS_LTE
- => Ericsson wonders why the need code is now considered applicable to both UL and DL ?
- We agreed to apply the same principle as for RRC in which case the need code is only

applicable to DL. QC clarifies it was not an intentional change by this CR. QC agrees we should not have need codes for UL. Ericsson points out that the table was almost copied from RRC, but removed is the "for DL only".

=> Will make the table clear on "for DL only" (probably align to RRC)

=> We will see update in R2-104972 CR0030 R1

R2-104972: Various corrections and clarifications to LPP Qualcomm Incorporated CR 36.355 0030

1 F REL-9LCS_LTE

=> CR is agreed

6.1.2 Other

Any further clarifications required w.r.t. what reliable transport features can be used independently/have to be used in combination?

OTDOA specific

R2-104773: Clarification of the relation between OTDOA assistance data parameters Ericsson, ST-Ericsson CR 36.355 (0034) - D REL-9LCS_LTE

- Based on offline discussion the document is updated in R2-104971

R2-104971: Clarification of the relation between OTDOA assistance data parameters Ericsson, ST-Ericsson CR 36.355 0034 - D REL-9LCS_LTE

- NSN would like to have some more time to check in detail.

=> Noted: In offline discussion it was not possible to reach consensus, so it is proposed to postpone the CR.

R2-104689: Assistance data for OTDOA cases with serving cell different from reference cell Qualcomm Incorporated Disc REL-9LCS_LTE

- So QC sees no big concern/problem, but we could discuss whether an SFN offset should be signalled from Rel-9 or Rel-10.

- Huawei assumes the serving cell will always be included as serving cell or neighbour cell. So Huawei assumes the UE can always infer the reference cell SFN from the serving cell.

- Ericsson thinks the UE only needs to know the SFN of one cell, so as long as the serving cell is included in the list, the UE can find out the SFN of other cells.

- QC thinks in the UP case, the serving cell might not support positioning (e.g. home-eNB not part of asynchronous network).

- Huawei assumes that if the serving cell does not support positioning, it will also not support LPPa. QC agrees, so then it might not be included in the assistance data.

- QC clarified that in a semi-static deployment, the UE knows the SFN of the serving cell and can assume the PRS occasions overlap within synchronisation tolerance. Ericsson thinks semi-asynchronous and synchronous are handled the same from the UE point of view w.r.t. that the UE needs to know the SFN of one cell included in the assistance data. All calculations can be based on that cell.

- It was questioned how the server knows the UE has knowledge of the SFN in a specific cell? As long as the server knows the serving cell, there is no problem.

- QC clarifies RAN4 assumes the whole deployment is asynchronous. So then only knowing the SFN of one cell in the list is ok.

=> No change needed for Rel-9. Can further consider for Rel-10 or later

GPS specific

R2-104693: Broadcast of GPS Time using SIB8 Qualcomm Incorporated Disc REL-9LCS_LTE

- NSN indicates that there is another paper from QC for broadcast assistance data for Rel-10? So we should first discuss whether broadcast data is useful. QC thinks both issues are orthogonal: here there is an attempt to make a specific piece of information data early for stand-alone positioning, so even when no positioning session is ongoing.

- NSN thinks it would be strange to have a dependency of positioning on CDMA specific information. We should not make this strange type of cross correlation.

- It was questioned whether we would not need a flag to indicate that the CDMA time is really GPS time and not a random time? QC indicates that the SIB8 always included the CDMA system time which is by definition the same as the GPS time.

- Huawei also does not like this type of strange re-use. Also Huawei does not see a need to enhance the CP for this.

- QC assumes this is already possible today. Chairman assumes there is no UE requirement to read SIB8 if it does not support CDMA. QC agrees, but thinks if a UE benefits it is free to do so.
- Huawei wonders if we have to encrypt the GPS time broadcast ? QC points we already have it unencrypted.
- NSN could see how it could be usefull, but thinks it would be strange to have some part in a CDMA broadcast part if the general broadcast support information in Rel-10.
- ALU understands from QC that with or without the CR it seems possible. So why is a CR needed ? NSN also sees no need for a change of our spec's.
- NTT DCM is interested in GPS time assistance but they are a bit concerned to broadcast SIB8 as a non-CDMA operator. QC does not intend to mandate broadcast, it is still operator choice to broadcast this with time information only.
- QC main intention is to clarify that a network is allowed to do this (i.e. broadcast SIB8 without CDMA support and only including timeinfo). ALU thinks 3GPP should not make this type of clarification.

=> Noted; left as UE implementation issue.

R2-104694: Broadcast of GPS Time using SIB8 for non-CDMA2000 Operators Qualcomm Incorporated CR 36.355 (0033) - F REL-9LCS_LTE

=> Noted (related to previous document)

Other

R2-104690: Support of functional components for LPP reliable transport Qualcomm Incorporated CR 36.355 (0031) - F REL-9LCS_LTE

=> NSN is ok with the intention but would like some editorial changes

=> Agree that a UE supporting LPP over the CP shall support duplicate detection, acknowledgements and retransmissions.

=> Will see update to try to improve wording in R2-104973 CR0031

R2-104973: Support of functional components for LPP reliable transport Qualcomm Incorporated CR 36.355 0031 - F REL-9LCS_LTE

=> CR is agreed

R2-104691: Introduction of EPDU ID requested by OMA LOC Qualcomm Incorporated CR 36.355 (0032) - F REL-9LCS_LTE

- QC thinks in the reply LS we should ask OMA for a spec reference

=> Should be corrected to be based on current spec version

=> With this change it is agreed in R2-104974 CR0032

Note: R2-104974 was agreed at RAN2 #71 but used wrong CR number; therefore it is revised in R2-105269 CR0032r1.

R2-104774: Several corrections in LPP Ericsson, ST-Ericsson CR 36.355 (0035) - F REL-9LCS_LTE

Change 1:

- QC is not clear of the reason of this ordering. The most useful to measure is listed first. Should this be a should requirement of the server, or a requirement on the order of processing by the UE ? Ericsson agrees main intention is to ensure order or measuring by UE. QC thinks if e.g the UE is closed on one eNB then the strong paths might not be so usefull, and thus the server might include a weaker path. QC clarifies currently we have no specification for the order of the UE measurement.
- Ericsson indicates that the "geometry" is not defined for multiple cells. Ericsson thinks if there is some criteria for ordering for the SMLC, then the criteria should be clear like received estimated received signal strength.
- CSR thinks the network should not be too constraint.

=> Allow some offline discussion on whether something is needed, and how to best capture

Change 2:

- Huawei thinks this only solves part of the problem. E.g. it does not solve the case when the reference cell is serving cell and the target cell is not in the assistance data. So is this change really needed ?
- QC thinks this is a clear bug-fix. All other information provided in this respect is relative to the reference cell. Also the serving cell might change during the positioning session and then the information might no longer be correct.

- NSN agrees with QC/Ericsson: normally all these are defined relative to the reference cell. Ericsson clarifies their main intention is that as long as the reference cell is in the list, the positioning measurements can continue.
- => Agreed
- Change 3:
- => Agreed
- Change 4:
- => Agreed
- => Will see update after concluding offline on change1 in R2-104975 CR0035 => Updated before presentation in R2-105219
- R2-105219: Several corrections in LPP Ericsson, ST-Ericsson CR 36.355 0035 R1 F REL-9 LCS_LTE
- => CR is agreed
- R2-104881: On LPP transferred information in 36.305 HTC Disc REL-9 LCS_LTE
- QC is not sure there is a problem. Stage-2 seems to be quite ok considering the detail normally provided in a stage-2.
- HTC agrees this is only clarification: the stage-2 could give the wrong feeling. HTC agrees there is no big problem.
- => Noted; Not much support for this type of clarification in the stage-2. Can still look at the last clarification in the CR.
- R2-104882: Clarifications to LPP transferred information HTC CR 36.305 (0019) - F REL-9 LCS_LTE
- Should still check the changes from 8.1.3.3.2, 8.2.3.3.2 and 8.3.3.3.2. (removal of "and supported by the E-SMLC").
- QC agrees that in the UE initiated case the UE does not know what is supported by the e-SMLC.
- Samsung agrees the UE cannot strictly know, but the UE could remember from a previous positioning session.
- => This change seems acceptable
- => Will updated CR in R2-104976 CR0019 with all other changes removed
- R2-104976: Clarifications to LPP transferred information HTC CR 36.305 0019 - F REL-9 LCS_LTE
- => CR is agreed (MCC will update document number)
- R2-104883: On Assistance Data Transfer Procedure in 36.355 HTC Disc REL-9 LCS_LTE
- R2-104884: Clarification to Assistance Data Transfer Procedure HTC CR 36.355 (0036) - F REL-9 LCS_LTE
- NSN wonders if it is not sufficient that step 3 already indicates additional assistance data than requested can be provided ? HTC thinks even step3 does not indicate this.
- QC assumes the current text is correct: in case of requested assistance the server should only provide what is requested. So if we want to clarify something, the procedure text should be clarified. HTC thinks the stage-2 indicates also other assistance data can be provided.
- QC thinks the intention has always been in the non-req procedure that the server can provide additional information, but not in the req/resp case.
- CSR assumes it might be usefull to have the server provide anything it likes even in the request case.
- Huawei points out that in stage-3 section 5.4.3 indicates that the server may provide other information. So the HTC CR is correct.
- => After offline discussion, a new formulation was agreed. Update can be provided in R2-104990 CR 0036
- R2-104990: Clarification to Assistance Data Transfer Procedure HTC CR 36.355 0036 - F REL-9 LCS_LTE
- => CR is agreed

6.2 Support for IMS Emergency Calls over LTE (RP-081140)

(IMS_EMER_LTE, leading WG: RAN2, started: Dec. 08; closed: Sep. 09, WID: RP-081140)

No contributions.

6.3 MBMS over LTE (RP-091457)

(MBMS_LTE, leading WG: RAN2, started: March 09; closed: March 10, WID: RP-091457)

6.3.1 In principle agreed CRs

- R2-104280: CR to 36.331 on clarification for MBMS PTM RBs ASUSTeK CR 36.331 0446 - F REL-9 MBMS_LTE
- CR is not changed but you received offline comment to move change from 5.1.1 to 3.2
 - Samsung wonders if we have the general statement in 5.1.1, why do we need all the other changes ? Ericsson is wondering about this as well. ALU also supports this view.
 - => Agree that it should be sufficient to introduce " MRB's" and include one sentence on RB's not including MRB's.
 - => Will see updated CR in R2-104977 CR0446 R1
- R2-104977: CR to 36.331 on clarification for MBMS PTM RBs ASUSTeK CR 36.331 0446 R1 - F REL-9 MBMS_LTE
- Ericsson would prefer not to have this exclusion of MRB listed in the definition section. Before it was in section 5.1.1 but also not so appropriate.
 - Ericsson proposes 3.1. IPW thinks maybe it should be more linked to MRN definition.
 - => Discuss offline best way to capture. Will see one more update in R2-104989 CR0446 R2
- R2-104989: CR to 36.331 on clarification for MBMS PTM RBs ASUSTeK CR 36.331 0446 R2 - F REL-9 MBMS_LTE
- => CR is agreed

6.3.2 Other

- R2-104939: Clarification of MBMS UE capability CR 36.306 CR0035 Panasonic
- Panasonic clarified that the different categories are introduced to more efficient MBMS in certain cases. Underlying assumption is that the operator knows the capabilities of his UE's. Probably typically category 3 would be used if all UE's support category 3. Otherwise a less efficient scheme would have to be deployed.
 - Question was whether MBMS transmission should be substructured in a TTI form the unicast UE capability ? This is not necessary because MBMS and unicast are not sent in same TTI.
 - => CR is agreed

6.4 Home-eNB enhancements (RP-091392)

(EHNB-RAN2, leading WG: RAN2, started: March 09, closed: March 10, WID: RP-091392)

No contributions.

6.5 Public Warning System (PWS) (RP-090649)

(PWS-RAN, leading WG: RAN2, started: June 09, closed: Dec. 09, WID: RP-090649)

- R2-104782: CMAS in RAN sharing scenario Alcatel-Lucent Disc REL-9PWS-RAN
- ALU indicates RAN3 has discussed this issue and assume shared networks can coordinate this id allocation and are asking for confirmation from SA1.
 - QC wonders about the network sharing case: would the UE not have a table for what PLMN it should receive PWS. So in case of network sharing, what PLMN should be checked against this table ? The first PLMN or any PLMN in the broadcast ? NSN understands that PWS is provided in SIB, and not directly PLMN related (i.e. SIB11/12 does not indicate PLMN). QC thinks e.g. only if the rPLMN is the PLMN in the table in the UE, the UE might receive PWS. NSN thinks the SIB11/12 have no linking with a specific PLMN. ALU also understands the SIB is common. QC is invited to bring some material on this if there is a serious concern.
 - NSN thinks first question is whether RAN sharing needs to be supported (e.g. what happens with one CBC per PLMN).
 - Huawei thinks observation 2 is not valid: 36.331 indicates that the SN/msg number are only unique within a PLMN.

=> Noted (will wait for RAN3 LS and SA1 response).

6.6 Vocoder Adaptation (RP-090978)

(LTEimp-Vocoder, leading WG: RAN2, started: June 09, closed: Sep. 09, WID: RP-090978)

No contributions.

6.7 TEI9

Note: Better use "TEI9, LTE-L23" as WI code instead of "TEI9" alone for REL-9 enhancement CRs of LTE-L23. Otherwise UTRA and LTE CRs are difficult to distinguish.

6.7.1 In principle agreed CRs

- R2-104272: Miscellaneous corrections to RLCASUSTeK CR 36.322 0092 - D email discussion [70b#04] REL-9TEI9, LTE-L23
- LG thinks it should be category F (changes to 4.2.2.1 and 6.2.2.3)
=> CR is agreed with category F in R2-104978 CR0092 R1
- R2-104275: Clarification on UL handover preparation transfer HTC CR 36.331 0441 - F REL-9 TEI9, LTE-L23
=> CR is agreed
- R2-104276: Clarifications regarding fullConfigurationSamsungCR 36.331 0442 - F REL-9 TEI9, LTE-L23
=> NSN wonders why we still have highlights ? Samsung agrees they should be removed
=> It should also be made clear that C-RNTI is not clear due to full configuration
=> Will see update in R2-104979 CR0442 R1
- R2-104979: Clarifications regarding fullConfigurationSamsungCR 36.331 0442 R1 F REL-9 TEI9, LTE-L23
=> CR is agreed
- R2-104277: Clarifications regarding handover to E-UTRAN Samsung, HTC CR 36.331 0443 - F REL-9 TEI9, LTE-L23
- Vdf wonders about the note2. E.g. are there restrictions when RACH would be in every even subframe ? Samsung points out we have the same restriction for intra-LTE handovers.
- Vdf wonders if this means that for intra-LTE handover and inter-RAT handover, the RACH needs to have a RACH occasion at least every radioframe ? ALU indicates that indeed if you want to use configurations which do not have a RACH occasion every radioframe, the network needs to be synchronous (intra-LTE). QC understands this is indicated in the RAN1 specification. This aspect would not apply for inter-RAT.
- Vdf wonders if this is an artificial limitation or implying anything real. Chairman assumes with the proposed wording it is clarified that like in the intra-LTE case, the UE is not required to read the MIB of the target cell before doing RACH access
=> CR is agreed
- R2-104278: Correction on the table of conditionally mandatory Release 9 features NTT DOCOMO INC, CR 36.331 0444 - F REL-9TEI9, LTE-L23, SSAC
=> CR is agreed
- R2-104279: Corrections to TS36.331 on MeasConfig IE Huawei CR 36.331 0445 - F REL-9 TEI9, LTE-L23
=> CR is agreed
- R2-104281: Introduction of late corrections container for E-UTRA UE capabilities Samsung, Panasonic CR 36.331 0447 - F REL-9TEI9, LTE-L23
=> CR is agreed

- R2-104282: Renaming of containers for late non-critical extensions SamsungCR 36.331 0448 -F
REL-9TEI9, LTE-L23
=> CR is agreed

6.7.2 Other

36.321

- R2-104484: DL SPS and MBSFN subframe ASUSTeK CR 36.321 (0431) - F REL-9TEI9, LTE-L23
- NSN thinks existing text is fine. eNB can always ask for a transmission if it wants.
- Samsung thinks current behaviour is fine.
- Panasonic also thinks change is not needed
=> Noted
- R2-104891: Small correction to MAC HTC CR 36.321 (0434) - F REL-9TEI9, LTE-L23
- NSN assumes current text is correct. Samsung also assumes the text is clear.
- Chairman assumes with interpreting "but" as "except", there is no confusion.
- Ericsson thinks although a more ideal wording would potentially be possible there is no real problem.
=> Noted

Other

- R2-104618: Clarification for feature group indicator bit 11 Motorola, QUALCOMM Incorporated CR 36.331 (0460) - F REL-9TEI9, LTE-L23
- ALU agrees it is independent because FGI bit was introduced in Rel-8, and the eCSFB in Rel-9. ALU is ok with the CR.
=> CR is agreed in R2-104980 CR0460
- R2-104780: Proposed CSFB summary in TS36.300 Nokia Siemens Networks, Nokia Corporation Disc REL-9 TEI9, LTE-L23
- It was requested to indicate also clearer relation to the FGI bits. So far NSN only added a note on this.
- It was also commented that it might be more suitable to capture this in an annex of 36.331. NTT DCM thinks 36.331 would be useful, especially if we include FGI bits and capability bits. NSN points out they copied the capability from 36.306.
=> Enhance the table with the FGI bit information
=> QC supports having the table. It would also be good to support CSFB to 1xRTT in the same table. NSN indicates that 10.2 is only applicable for 3GPP RAT's. So a similar table could be introduced in 10.3. Can be based on the text summary that is present. DT thinks it would be nice to anyway have the same type of overview for CDMA.
- DT thinks another dimension is performing measurements or not. Depending on FGI, all cases can be based on measurements or blindly.
=> Indicate measurements are orthogonal
=> Remove SRB only case for UMTS
- Samsung wonders what is meant by "mandatory for CS fallback capable to UMTS capable UE's". Should replace by "mandatory for UE's supporting UMTS" NTT DCM thinks since this section is about CSFB, the current text is correct. NTT DCM thinks CSFB is not mandatory for all terminals and might e.g. not be supported by data cards.
=> Will see update in R2-104981 CR0254
- R2-104981: Proposed CSFB summary in TS36.300 Nokia Siemens Networks, Nokia Corporation CR0254 REL-9 TEI9, LTE-L23
=> NSN intends to remove all FGI's indicated with question mark
=> NEC indicates clauses effected is not correct
- DT wonders what "UEs performing" means ? "capable of performing" ? NSN explains it did not indicate "capable of performing" because then it seems there would be a capability. DT thinks the current wording seems to suggest some dynamic capability.
=> Change to "mandatory for UEs supporting CSFB fallback to UMTS"
- NTT DCM wonders if the measurement related FGI's are captured ? NSN indicated the measurement ones if there is a clear dependency indicated in the FGI table.
=> Panasonic understands that both CCO's require FGI10
- Samsung understand FGI24 requirement is clear. Motorola thinks this is still under discussion.

- => In last row of CDMA table, indicate that the UE capability should be set to "dual"
=> Will see update in R2-105216
- R2-105216: Proposed CSFB summary in TS36.300 Nokia Siemens Networks, Nokia Corporation CR0254
R1 REL-9 TEI9, LTE-L23
=> CR is agreed
- R2-104615: Remove The Restriction on RSRQ When Interworking with CDMA (36.304) Alcatel-Lucent, Verizon CR 36.304 (0139) - F REL-9TEI9, LTE-L23
- Nokia wonders why not separate RSRQ thresholds are provided ? ALU clarifies there is only is RSRP in CDMA.
 - NTT DCM assumes there is only 1 CDMA measurement quantity.
 - NTT DCM thinks also towards CDMA, threshServingLowQ-r9 can be used as the switch. ALU agrees this is a valid option. However ALU thinks there could be misalignment between CDMA and LTE Rel-9 deployment. So maybe a deployment might want to use RSRQ for reselection within LTE, but still RSRP for intra-RAT to CDMA (to avoid ping-pong back from CDMA to LTE if that is based on RSRP).
 - NTT DCM wonders if this concern would only be for a transitional period ? For UMTS/GERAN we did not introduce this type of flexibility. ALU thinks it depends on deployments how long the situation would last. Verizon supports having a separate indication in SIB8.
 - ALU assumes a similar issue might exist for GERAN. ALU thinks the issue for CDMA and GSM might be a bit different from UMTS because GERAN/CDMA are "legacy networks".
 - Nokia understand GERAN has introduced RSRQ to prevent ping-pong for the case RSRQ is used. Nokia thinks it is logical that when you add a new network, you might have to upgrade existing networks.
 - Nokia agrees our specification is not fully complete for reselection to GERAN (more or less editorial changes).
 - DT agrees with Nokia. Operators have a responsibility w.r.t. alignment.
 - Vdf thinks it might be useful to allow network upgrades at different times.
 - NTT DCM assumes the main intention of RSRQ is that the UE performs measurements when there is a pico/femto cell, reselection argument was second order. So most of the problem is alleviated. For reselection we have absolute priority based rules. So is there really a ping-pong problem when we have absolute priorities ? Verizon assumes that the problem might increase now because you might earlier go to lower priority carrier, and then later you might ping pong back if the UE in the target network only looks at RSRP.
 - Verizon thinks we should agree on the principle but can work on the details.
- => Agree that in Rel-9 RSRQ should be useable for reselection to CDMA. Can discuss details offline e.g. whether independent control is required.
=> We will see text update in R2-104982, allow some offline discussion
- R2-104982: Remove The Restriction on RSRQ When Interworking with CDMA (36.304) Alcatel-Lucent, Verizon CR 36.304 0139 - F REL-9TEI9, LTE-L23
- NTT DCM wonders why no similar sentence is included for the higher priority GERAN/CDMA case ? Nokia agrees with NTT DCM: otherwise GERAN/CDMA could never be higher priority. DT agrees
- => Should include additional sentence for the higher priority case concerning GERAN/CDMA
=> Will see update in R2-105222 CR0139 R1
- R2-105222: Clarification on the use of RSRQ for cell reselection towards GERAN or CDMA Alcatel-Lucent, Verizon, Ericsson, ST-Ericsson, KDDI, Motorola, Nokia, Nokia Siemens Networks, Qualcomm Incorporated, Vodafone CR 36.304 0139 R1 F REL-9TEI9, LTE-L23
=> CR is agreed
- R2-104616: Remove The Restriction on RSRQ When Interworking with CDMA (36.331) Alcatel-Lucent, Verizon CR 36.331 (0459) - F REL-9TEI9, LTE-L23
=> Noted (related to previous discussion)
- R2-104488: Clarification on system information acquisition ASUSTeK CR 36.331 (0454) - F REL-9 TEI9, LTE-L23
Proposal 1:
- Samsung wonders if this should be modelled as required system information or conditional.

- Samsung points out that for SIB13 we do not list all triggers needed for SIB13 acquisition. We have a more general statement that the UE should acquire when needed (see sentence in 5.2.2.4 after note 3)
- IPW thinks 5.2.2.4 is sufficient
- => Not needed
- Proposal 2:
- Asustek thinks this change is no longer needed
- => Not needed
- Proposal 3:
- Huawei assumes current text in 5.2.2.2 is sufficient. Ericsson has the same opinion. It is already clear from 5.2.2.3
- => Not agreed
- Proposal 4:
- => MCC will in next update of 36.331 include the "c" in "acquire" in two places in 5.2.2.4. All other changes are not agreed

- R2-104638: Clarification on full configuration ZTE CR 36.331 (0464) - F REL-9TEI9, LTE-L23
- ALU points out that if this is a re-establishment procedure, the C-RNTI is provided during RACH access. So ALU assumes the full configuration should not release the C-RNTI (note that the C-RNTI is included in MCI and not included in the non-handover related reconfiguration)
 - ZTE thinks this is only the handover case. ALU assumes we should have the same handling for all cases of full configuration
 - Samsung points out that the in principle agreed CR on full configuration already makes changes to this related to measurement configuration
 - => C-RNTI should not be cleared when applying full configuration. Will be captured in update of R2-104276.
- R2-104318: Clarifications regarding setting rlf-InfoAvailableSamsungCR 36.331 (0450) - F REL-9TEI9, LTE-L23
- => revised in R2-104892
- R2-104892: Clarifications regarding setting rlf-InfoAvailableSamsungCR 36.331 (0470) - F REL-9TEI9, LTE-L23
- Nokia wonders what type of measurements the UE would have when T304 expires. Would these measurements be usefull ? Samsung assumes that from the moment the measurement report was provided until T304 expiry could be several seconds, and other cells could appear.
 - NSN thinks RLF-info was for SON-MRO purposes and it was deliberately asked for RLF cases only not for handover cases. QC has the same understanding. So for detecting too-late/early handover, we do not need the measurements at handover failure.
 - => Noted (no support)

6.8 LTE-A (SI: RP-091360)

(FS_RAN_LTEA, leading WG: RAN1, started: June 08, closed: March 10, WID: RP-091360)

No contributions.

6.9 Other LTE Rel-9 WIs

No contributions.

7 LTE Release 10

7.1 WI: Carrier aggregation (RP-100661)

(LTE_CA-Core, leading WG: RAN1, started: Dec. 09, target: Dec. 10, WID: RP-100661)

7.1.1 Stage-2

7.1.1.1 Stage-2 Corrections

Proposals from rapporteur to correct/improve current agreement status in 36.300 shall be submitted under this agenda item. Also proposed non-contentious corrections to the stage-2 can be submitted here.

In principle agreed CR

- R2-104268: 36.300 CR collecting all Carrier Aggregation agreements of RAN2 #70bis Nokia Siemens Networks
 - This version is as agreed. Very minor update provided in R2-104304
- R2-104304: Corrections and new Agreements on Carrier Aggregation Nokia Siemens Networks
 (Rapporteur) CR 36.300 0248 1 B REL-10 LTE_CA-core
 => Agree this CR as baseline for further work
 => Rapporteur will provide update after this meeting to reflect stage-2 decisions made during this meeting in R2-104983
- R2-104983: Rapporteur update of 36.300 CR
 => In J.3, there is a "." missing in the new reference
 => With this change the CR is agreed in R2-105217
 Note: CR was agreed during the meeting but used wrong rev number (2 instead of 3), therefore revised in R2-105268 CR0248 rev 4 which is agreed.

Other

- R2-104305: Measurement Event A3 in Stage 2 Nokia Siemens Networks, Nokia Corporation Disc REL-10 LTE_CA-core
 => Agree to included proposed changes in R2-104983
- R2-104848: Corrections on CA security Huawei CR 36.300 (0250) - F REL-10 LTE_CA-core
 - Ericsson thinks it one be better to say "one serving cell provides the security input" and refer to this cell as primary cell. E.g. with the new text makes it not clear what is the "serving cel" at handover.
 - NSN thinks this kind of details can be left to stage-3: what we have in stage-2 should be sufficient.
 => Can see text proposal update in R2-104984
- R2-104984: Corrections on CA security Huawei CR 36.300 0250 - F REL-10 LTE_CA-core
 => Remove "similar as in Rel89"
 => Text with this change can be included in R2-104983
- R2-104897: Some clarifications on TS 36.300 HTC CR 36.300 (0253) - F REL-10 LTE_CA-core
 => Updated before presentation in R2-104929
- R2-104929: Some clarifications for carrier aggregation on TS 36.300 HTC CR 36.300 (0253) - F REL-10 LTE_CA-core
 General
 - NSN wonders what is changed compared to R2-104897 ? Title was changed. Also one proposal was removed.
 Change 1
 - Motorola assumes this is not so needed: reselection is not a network based trigger.
 => Not needed
 Change 2
 - QC thinks because we have not really completely agreed on it, the current text is better
 => Not needed (maybe update after we have worked out the details)
 Change 3

- NSN thinks the "for any serving cell" is there on purpose. NSN sees no need to delete it. HTC thinks this seems to suggest that an Scell can have a grant for the Pcell.
- => Not so needed (to risk of confusion)
- Change 4
- QC assumes an assignment for a deactivated cell is a network error, so we do not have to cover this.
- NSN thinks we could move everything to MAC ? Ericsson is ok with this way forward (there is already pseudo code).
- => Rapporteur can remove concerning deactivation timer details from 36.300 in R2-104983
- Change 5
- => Rapporteur will change reference in J.3.2. in R2-104983

Too late/not available/withdrawn

R2-104888 Clarification on RRC connection re-establishment in TS 36.300 HTC CR 36.300 (0252) - F REL-10 LTE_CA-core

7.1.1.2 Activation/Deactivation

E.g. How will intra-band act/deact work (glitch/no glitch: dependant on RAN4 input) ? Do we also need to support UL activation/deactivation ? If so, would UL act/deact be linked to DL activation/deactivation or independent ? What are the functional implications for the UE of UL deactivation/activation ? What are the measurement requirements for deactivated CC's (RAN4 input)?

RF retuning/glitch at activation/deactivation ?

R2-104845: Further Consideration on Glitch Huawei Disc

R2-104818: Activation/Deactivation of SCells and Retuning Nokia Corporation, Nokia Siemens Networks Disc

R2-104505: Consideration on Glitch CATT Disc
All 3 Tdocs not treated

R2-104576: Discussion on activation deactivation timing New Postcom Disc
revised in R2-104961

R2-104961 Discussion on activation deactivation timing New Postcom Disc
not treated

R2-104906: Discussion on Timing Relationship for Scell activation/deactivation HT mMobile Inc. Disc
not treated

If we have no glitch at act/deact, we have one at configuration/release ?

Most companies seem to prefer no glitch at act/deactivation ? Can we assume no glitch unless RAN4 feedback suggests otherwise ?

UL activation/deactivation

R2-104753: Considerations on UL Activation and Deactivation CATR Disc

- RIM wonders about the power saving with multiple RF components: you can just turn them on/off (no glitch) when you get a grant.

R2-104862: UL activation/deactivation NTT DOCOMO, INC. Disc

- Panasonic understands no UL activation/deactivation explicit signalling, but still an activated/deactivated state for UL. NTT DCM agrees it could be defined that way.
- IDT understands that there will be a UE specific per cell search space in which both UL and DL grants are included. So there the biggest reduction in blind decodes (i.e. biggest reduction in false alarms) when both UL and DL grants are no longer necessary to receive.
- QC assumes we would need the concept of UL activation/deactivation if we want to stop UL grant PDCCH reception.
- Panasonic points out that if we have UL deactivation, also no longer 3A would need to be received.

R2-104504: UE behaviour for activation and deactivation of SCells and details of MAC CE for CC Management Panasonic Disc

R2-104506: UL CC Activation/Deactivation CATT Disc

R2-104481: Avoiding glitches upon Activation/Deactivation Ericsson, ST-Ericsson Disc
 R2-104623: Discussion on UL Act/Deact state ZTE Disc
 R2-104819: Uplink Activation & Deactivation of SCells Nokia Corporation, Nokia Siemens Networks Disc
 R2-104822: Discussion on UL activation/deactivation Samsung Disc
 R2-104292: Considerations on CC Activation/Deactivation Potevio Disc
 R2-104351: UL activation and deactivation of SCell Sharp Corporation Disc
 R2-104601: UL SCell activation/deactivation procedure ETRI Disc
 R2-104355: UL SCell Activation/Deactivation Sony Corporation Disc
 All 10 Tdocs not treated

R2-104422: Discuss on uplink act/deact mechanism MediaTek Disc
 revised in R2-104932
 R2-104932 Discuss on uplink act/deact mechanism MediaTek Disc
 revised in R2-104953
 R2-104953 Discuss on uplink act/deact mechanism MediaTek Disc
 not treated

R2-104695: UL CC status at DL CC deactivation Qualcomm Incorporated Disc
 R2-104725: Support of UL (de)activation Huawei Disc
 R2-104816: Explicit Uplink SCC Deactivation in LTE CA InterDigital Disc
 R2-104830: Open issues on UL activation / deactivation Pantech Disc
 R2-104902: UL Activation and Deactivation Mechanism ITRI Disc
 All 5 Tdocs not treated

Discussion

- ZTE thinks when DL CC is deactivated, it sounds reasonable that UL CC with scheduling ref/power ref should be deactivated. But ZTE see no reason to activate the UL CC when the these DL's are activated. QC thinks when we look at PDCCH search, a combined approach might be more logical.
- Panasonic thinks it seems everybody agrees we have UL activation/deactivation, and we have to discuss the details of what it means and whether it is linked or explicit.
- Ericsson thinks a deactivated carrier can still be used as power ref. If the network has concerns it can just not schedule the UE on that CC. QC agrees. NTT DCM interpreted the LS as indicating that it is possible but it would be inaccurate. Ericsson thinks that if the network does not want to take the risk of inaccurate power ref, the network can just not schedule the UE on that CC. NTT DCM agrees the network should not schedule the UE on that CC, but you also want SRS transmission to stop. Ericsson could agree it is a signaling optimisation not to have to use RRC for this.
- IDT thinks it might be simpler to start from SIB2 linking.
- Samsung also does not see a direct relation between pathloss ref deactivation and activation/deactivation. E.g. we have the similar situation in Rel-89 in DRX. Samsung assumes it is simplest to start based on SIB2 linking.
- QC could agree SIB2 linking is the simplest approach but it does not work if that DL is not used for power ref/scheduling. QC thinks the most logical is if the UL act/deactivation would be based on scheduling.

Scheduling ref SRS stop

- If the Pcell is scheduling ref, then the SRS would never be stopped. So the network would have to use RRC (Scell release) for UL's not linked to the Pcell, and implicit for others. Ericsson does not like to have 2 mechanisms. NTT DCM wonders what are the more practical scenarios ? NTT DCM assumes typically (at least in initial deployments), both power ref and scheduling ref would be SIB2 linked. Then implicit would be quite sensible.

SIB2 linking SRS stop

- Nokia thinks we should have the SIB2 linked for SRS transmission stop. IDT agrees, and then we could think further enhancements.
- Huawei thinks using the SIB2 linking is good.
- Panasonic thinks still SRS transmissions can immediately be stopped when the scheduling CC is deactivated.

SRS stopping general

- Ericsson sees no reason to have implicit mechanisms to stop SRS. It could only rely on RRC configuration. E.g. when scheduling from the Pcell, I still would need RRC signalling. Panasonic thinks explicit UL activation/deactivation would work.

- NTT DCM thinks it would be better to have this type of SRS stopping confined in lower layers.
- Ericsson thinks it is sufficient to stop SRS transmissions only with RRC signalling in Rel-10. Ericsson thinks then we do not need UL activation/deactivation.
- NTT DCM thinks if you always have RRC signalling for stopping SRS, why not just release/configure ? Ericsson thinks so far act/deactivation was motivated by DL procedures, stopping PDCCH monitoring. NSN agrees with NTT DCM: what is the benefit of a MAC level act/deact if you anyway have to use RRC signalling for SRS everytime ?
- Huawei agrees with NTT DCM.
- Ericsson indicates that also in Rel-89 we can continue SRS also when we do not schedule the UE for some period. There is no reason to link it necessarily.

Search space reduction

- QC thinks this can be linked to DL deactivations: When an Scell is deactivated completely you can stop looking in that search space. So QC thinks when an Scell is deactivated, the UE specific search space if it is on another cell also does not longer need to be received.
- Panasonic thinks if we do not receive the search space anymore but continue SRS, we cannot power control the SRS. IDT is not sure what the status is of power commands for Scells. IDT thought it might only be on Pcell.
- Mediatek wonders if a) + b) means we cannot activate an Scell with an UL grant. Nokia thinks if we do not receive UL grants, there is no implicit activation to do. QC agrees with Mediatek. So with a) + b) if you want to activate an Scell, you have to sent an activation comand on any search space the UE is still receiving.
- Ericsson thinks b) would introduce a kind of UL activation/deactivation. So then we might introduce much more complexuty.
- Samsung thinks if we do not agree on b), then the UE is forced to receive UL grants for a deactivated Scell ? The UE could even end up receiving DL allocations if it tries to receive UL grants and the DL allocations have the same size.
- RIM agrees with Ericsson. Maybe you want to keep the UL data flow when you deactivate a DL.
- IDT wonders if it is possible to decrease the UL blind decodes without RRC reconfiguration. Chairman thinks you can always use a).
- Panasonic thinks explicit control would be the simplest for UL activation/deactivation. This is all about power consumption.
- NTT DCM thinks there are not much gains from stopping a DL if you do not stop the UL which takes much more power.
- QC thinks b) is quite simple.
- Motorola thinks b) is already agreed in RAN1.

Continuation on Wednesday:

- Samsung thinks point b) is logical but they are not sure it is agreed.

Agreements:

- 1) When a Scell DL is deactivated, the UE does not receive any PDCCH on that Scell anymore (for both UL/DL grants)
- 2) When an Scell DL is deactivated which is cross carrier scheduled, the UE does not need to receive DL allocations in the concerning UE specific PDCCH search space (on the scheduling cell) anymore.

Three solution directions (FFS):

- A) No lower layer control for UL SRS stopping/search space limitation is needed [7]
- B) SRS stopping/search space limitation linked to DL deactivation, e.g: [14]
 - b1) When an Scell is deactivated which is cross carrier scheduled, the UE does not need to receive the concerning UE specific PDCCH search space (on the scheduling cell) anymore (for both DL and UL grants).
 - b2) Uplink SRS transmissions does not need to be stopped by UE when power ref cell is deactivated (FFS)
 - b3) Uplink SRS transmissions should stop when scheduling ref cell is deactivated ?
 - b4) Uplink SRS transmissions should stop when the SIB2 linked cell is deactivated ?

C) If we cannot link any of the above functionality to DL deactivation, do we want lower layer signalling for any of the above functionality i.e. separate MAC control ? [4]
 - SRS stopping /search limitation control by explicit control in MAC

- Huawei would like to take decision in this meeting.
- Samsung thinks it does not matter so much which solution we take. Samsung would appreciate to know the view of the room (poll)
- LG thinks A) is baseline. Question is whether more optimisation is needed. If we consider max 2 carriers typically in Rel-10, A should be enough. Samsung would be ok with A.
- IDT thinks it is strange to have MAC for DL, an RRC for UL. Panasonic agrees. Mediatek agrees.
- NSN thinks with b1+b4 does not bring much additional complexity.
- Vdf assumes if we have 1 UL only, we do not need UL related activation/deactivation, and B will not bring any benefit. Seems correct. But ofcourse CA is supposed to consider also multiple UL cases.
- LG thinks we should settle for A.
- => Solution C) is out (low support), and we should work to see if we can complete simple solution based on B). Otherwise fallback is A).
- => **EMAIL DISC IDT [71#56]**; assuming we have no glitch, how would a simple solution in the direction of B) look ? Can also consider C) if simple B) is really not possible. Next meeting we decide.

Deactivation timing

R2-104503: Efficient and synchronized deactivation of Scell Panasonic Disc
 -

R2-104820: HARQ related DRX timers for CA Nokia Corporation, Nokia Siemens NetworksDisc

R2-104419: Timing relationship between Scell Activation/Deactivation and MAC CE MediaTek Disc
 Both not treated

Deactivation time options:

- A) asap after command
 - only after sending ACK (FFS) ?
- B) UE delays with fixed time
 - save 1 TB compared to having timer in the eNB
- C) Stop after last UL/DL HARQ retransmission
 - probably not easy if we have a glitch

Discussion

- NSN thinks since the eNB is in control of when to sent the MAC CE, the deactivation can be immediate (if the eNB cares, he could delay the MAC CE). Panasonic thinks you would have to wait untill all HARQ processes are finished.
- NSN wonders with "waiting untill all HARQ is finished" means the deactivation can be sent immediately after the activation ? Panasonic indicates this is only for retransmissions. NSN thinks this looks a lot like DRX, and there we have agreed that the UE always follows orders (i.e. when waiting for retransmissions, you still do not ignore new transmissions). Ericsson thinks this is not possible: if all ongoing transmissions are succesfull, the UE will immdiately deactivate. Ericsson supports C).
- NSN wonders what the relation to the deactivation timer is ? Panasonic clarifies the proposed timer is per UE.
- RIM thinks second approach is same as delaying the MAC CE. Panasonic points out that the benefit of the second approach is that you can sent the MAC CE deactivation in the last TB with a data transmission, and otherwise a separate TB would have to be scheduled to sent the MAC CE.
- Asustek thinks the deactivation can be sent on the Pcell together with data, so would not require an additional TB.
- Mediatek thinks deactivation should only happen when ACK has been sent.
- Samsung thinks B) benefit depends on HARQ operating point. In CA the operating point should be good.
- CATT thinks A) is simple and sufficient. CATT thinks saving 1 TB in some cases with B) is not significant. With C), CATT wonders how long the UE has to wait if a DL retransmission

? NSN assumes until deactivation timer expires. Ericsson thinks for DL, the UE would deactivate when not HARQ RTT or retransmission timer is running for that CC. CATT wonders what if no DRX is configured ? IDT thinks we should not link it to DRX. IDT thinks A) should be enough.

Agreement:

Will go for option A, i.e. deactivation as soon as possible after receiving MAC CE. FFS if only after sending ACK; i.e. detailed timing FFS.

Other

R2-104624: Group DL activation and deactivation ZTE Disc

- So is this something we would need if we have a glitch ?
 - NTT DCM thinks in theory this type of approach could help. However it will complicate eNB implementation due to UE implementation variations. Ericsson agrees that it would be preferable if the eNB would not have to be concerned about this type of aspects/UE implementation variations.
 - NTT DCM thinks if we go in this direction, if we start with wider bandwidths multiple bands, we might end up with a lot of different UE implementations to consider. So we should watch out to go in this direction at this early stage.
 - NSN thinks it is quite likely that the eNB would not use this type of information, especially if the glitches are small enough to be ignored.
 - Huawei thinks this proposal is helpful for the measurement, to know whether the UE will have a glitch for measurements on deactivated CC
- => Noted; can revisit if we have glitches.

R2-104792: Simplification proposals for timer based DL deactivation Alcatel-Lucent, LGE Disc

- Nokia thinks this was introduced as a safety mechanism. If we now start having infinity values, then there is no use. But capability bit is ok.
 - Motorola wonders about option 6: Does it mean the MAC CE has to be sent periodically if certain carriers are active ? ALU confirms.
 - ZTE wonders if option 3 would link deactivation to DRX ? ALU confirms. ZTE wonders what if no DRX is configured ? ALU indicates that then you would have to use explicit signalling. IDT thinks we always have the TAT timer.
 - RIM does not like infinity timer. IOT/capability bit for the UE does not help eNB complexity.
 - NTT DCM supports the "infinity" if we are going to have the timer; it gives the network the option not to use it as a design choice. NTT DCM would prefer not to have IOT/Capability bit, because it will not make it possible for the network to rely on one mechanism if the network wants to use it.
 - Panasonic thinks infinity is nice, or option 6 is nice since then the work in the UE does not scale with number of CE's.
 - NSN agrees with DCM.
 - Samsung agrees with chair that only linking deactivation to TAT is sufficient. Samsung thinks infinity value makes sense, and also thinks option 6 is interesting, and linking to TAT timer is interesting.
 - IDT thinks the TAT is an option, IDT assumes TAT would have much bigger values than deactivation timer. Samsung assumes deactivation timer is only useful for error cases and Samsung assumes length of the timer is not so important.
 - Ericsson thinks it will also depend quite a lot on what we couple/link to deactivation. The more we link to deactivation (e.g. AN resources, UL SRS, CQI reports), the more important it becomes that the misalignment period between UE and eNB is limited. So if we couple a lot we probably need the timer, if we couple very little, we could probably remove the timer.
 - Huawei thinks linking deactivation to TAT only is not sufficient, since the TAT is per UE.
- => Noted; currently keep what we have. If we understand more details of what functionality is linked to deactivation, we could reconsider simplifications.

R2-104622: Discussion on measurement requirement ZTE Disc
not treated

Too late/not available/withdrawn

R2-104602 UL activation and deactivation of SCell Sharp Corporation Disc

R2-104688 Activation Timing and Transient Period Nokia Siemens Networks, Nokia Corporation Disc
=> Withdrawn

R2-104867 Simplification of Implicit deactivation timer NTT DOCOMO, INC. Disc
withdrawn

7.1.1.3 CC/cell management: CC/cell configuration

Aspects of CC/cell management not related to mobility/ addition/removal. E.g. what happens at TAT expiry with AckNack resources and status of Scells?

TAT expiry

R2-104626: UE's behaviour when TAT expires ZTE Disc
-

R2-104814: Release of PUCCH resources and removal of SCell Configuration InterDigital Disc
- CATT wonders if the measurements on the Scell continue if the TAT expires ? IDT agrees that if the Scell is release, measurement might autonomously have to be updated/removed by the UE.
- Motorola wonders if there will be re-arrangement of PUCCH resources if we release dedicated PUCCH resources ? Maybe we should wait for RAN1 to finalise PUCCH resource handling before deciding.
- IDT/ZTE understand that if we would release dedicated PUCCH resources, there would be no problem for communication with the Pcell. NTT DCM thinks maybe we should wait for RAN1, but at least NTT DCM is proposing in RAN1 that if only allocations are made on Pcell the Rel89 formats are used.

R2-104846: UE Behavior after TAT Expiry Huawei Disc
- NSN wonders if the PUCCH efficiency argument is trying to say we made a mistake in Rel89 ? Huawei thinks Rel10 is different because we will only have a few CA UE's.

R2-104322: TAT expiry and CC deactivation Fujitsu Disc

R2-104508: TAT expiry CATT, Nokia Siemens Networks, Nokia Corporation Disc

R2-104520: Handling of SCells upon TAT expiry Ericsson, ST-Ericsson Disc
All 3 Tdocs not treated

TAT expiry:

Scell

- deactivate or release

Dedicated AN

- release or not (wait for RAN1 progress?)

D-SR failure

- actions ?

Discussion:

- NTT DCM wonders why IDT wants to release the full Scell configuration ? IDT thinks it would make the UE revert to the same state as in Rel89.
- CATT assumes D-SR failure case should be handled same as TAT expiry. In D-SR failure case, deactivation would be beneficial, so CATT proposes it for both cases.
- Samsung thinks D-SR failure only means failure in Pcell (e.g. wrong pathloss estimate), so why link it to Scell ? CATT indicates PUCCH, periodic CQI,... is transmitted on the Pcell
- Samsung assumes TAT expiry is abnormal case. No need to optimise UE behaviour, so no need for deactivation. Ericsson agrees with Samsung. Huawei also agrees.
- NSN wonders if we are mainly targetting error cases, does it not imply misalignment at resumption of the communication (also depending on RAN1 decisions) ? NSN is thinking e.g. when PUCCH resource usage would depend on the activated Scells.
- Deactivation would become more important if PUCCH resources usage after recovery would depend on the activation status. If this is not a problem, then deactivation or not seems not so important.
- IDT wonders if there is problem if we would deactivate ?

Agreements:

- 1) Behaviour for TAT expiry and D-SR failure should be aligned (like in Rel89)
 2) In these cases we will not release the Scells at TAT expiry
 FFS if we deactivate Scells, AN resource handling FFS (depending on RAN1 progress)

Other:

R2-104664: Details of DRX operation in carrier aggregation NEC Disc
 not treated

Too late/not available/withdrawn

R2-104863: TAT expiry and Carrier Aggregation NTT DOCOMO, INC. Disc
 not treated

7.1.1.4 CC/cell management: CC/cell change

Aspects of CC/cell management related to mobility/ addition/removal. E.g. do we need to put requirements on what cells a source eNB can place in the Scell list ("sensible") ? Or do we want to provide radio measurements to the target eNB?

Do we want to change the Pcell with other procedures than handover (i.e. MCI) ? Companies that propose to change Pcell with other procedures than handover should also provide an analysis on the impacts to RRC signalling.

Pcell change without handover?

R2-104628: Pcell change by RRC reconfiguration ZTE Disc

- CATT wonders for observation 1, in scenario 4 or 5 when changing Pcell to RRH/repeater, would we ever change the Pcell to such a RRH/repeater given the small coverage ? ZTE assumes this is not forbidden by the specifications (network choice e.g. for load balancing).

R2-104788: PCell Change using Reconfiguration procedure Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc

- Huawei thinks hetnet should also work with legacy UE. So if there are indeed significant issues in the hetnet case, how is this handled towards the legacy UE ?
- Ericsson wonders on proposal2, whether the network will signal either MCI or "priCellInfoForReconfig" including radio resource config common. ALU confirms
- CATT wonders whether the target cell identification is missing ? ALU has another paper on this (they think no need for Pcell).
- NSN wonders if ALU assumes RACH access is not always needed ? ALU thinks if this is needed, the MCI/handover can be used. NSN assumes that it is quite risky to skip the RACH access, and if you have the RACH access then the gain of a "handover without RACH" become very small.

R2-104306: PCell Change and HO Procedure Nokia Siemens Networks, Nokia Corporation Disc

R2-104319: Primary Cell Change Samsung Disc

R2-104352: PCell change without handover Sharp Corporation Disc

R2-104421: Optimization on Intra-eNB Pcell Change Procedure MediaTek Disc

R2-104509: Additional Approach for PCell Change CATT Disc

R2-104614: Recommendation on PCell change optimizations Intel Corporation (UK) Ltd. Disc

R2-104696: Modelling of PCell change Qualcomm Incorporated Disc

R2-104806: Primary Cell Change Motorola Disc

R2-104894: Discussion on PCell change Huawei Disc

All 9 Tdocs not treated.

Discussion

- Samsung thinks for handover we have condition of success (RACH) and we have a normal failure case, but we do not have this for reconfiguration. So is this still ok for Pcell change without MCI. ALU thinks this type of failure handling is not needed for Pcell change with reconfiguration. Samsung assumes then the only case remaining would be "UE cannot comply", i.e. no normal failure. ALU thinks this is enough.
- QC wonders why it is so dangerous to skip RACH always ? QC assumes there are significant realistic cases where you can skip the RACH, i.e. in scenarios 1,2,3 and hetnet

case ? NSN thinks it might depend on what RAN1 is going to agree on L1, but handover seems much safer for syncing. NSN assumes in scenario 1,2 (with coverage layer) there is no need to change Pcell more often than in Rel-89. DT supports this view.

- Chairman wonders Pcell change without MCI can go to a non-configured cell ? ALU assumes we could limit it to a change of Pcell to a configured Scell. As a result, it can only be used if CA is configured. Handover would be used for all other cases.
 - Samsung assume case without handover will not be used frequently.
 - Motorola assumes the current handover procedure is quite "heavy" for an intra-eNB Pcell change. QC agrees with this.
 - Main gain is probably for scenario 3 and hetnet
 - DT thinks focus should be on scenario 1 and 2.
 - ALU clarifies that this type of parallel reception on L1 is already done for some procedures in Rel89
 - Panasonic thinks we should not refer to Rel89 frequency of handover because now we consider more details on femto/pico cells and the become more important
 - CATT thinks we should not deprioritise scenario 3.
 - Ericsson thinks it would be possible to introduce this, but this can easily be done at a later release to keep things simple.
 - QC assumes impacts are quite limited.
 - Motorola thinks this is not only an optimisation.
 - NTT DCM would be ok not to have this optimisation in Rel10. It would be possible but there would be quite many aspects to discuss (cell index handling, L1 handling, failure case) and we can avoid these discussions if we do not have this in Rel-10.
 - Huawei thinks for scenario3/hetnet we should have a common solution for legacy and Rel-10 UE's. So this is not important to have now.
- => Will not introduce this in Rel-10; Can be reconsidered for Rel-11 or later.

Info for Scell selection at handover

R2-104731: User throughput performance of different CA policies NTT DOCOMO, INC. Disc

- LG wonders for conclusion 1, what are low traffic loads when CA is beneficial. NTT DCM thinks can be derived from figure 3
- ZTE wonders if conclusion 2 would also be correct for scenario 2, where you might have to accept that the quality on the different layers is different. NTT DCM indicates they have also simulated 2 and 4 in the annex, and have same results there. As long as you have independent scheduling and include a not so good layer, you have this problem.
- Nokia wonders what the PRB usage in figure3 really is ? NTT DCM used the 36.814 definition of used RB's compared to total RB's.
- QC indicates that for HSDPA the metric of "burst rate" was introduced which assumed "joint scheduling". So if HSDPA is already deployed with joint scheduling, is it important to focus on independent scheduling ? NTT DCM agrees that joint schedulers might be deployed but they are quite expensive since they have to consider a larger number of UE's. So it would be good if the scheduler burden is reduced while performance gain is maintained. NTT DCM thinks this is possible with appropriate CC management.
- China Mobile wonders what scheduling is used in policy 3,4,5 ? NTT DCM clarifies independent scheduling, proportional fairness. China Mobile wonders how in figure 4b, policy 5 can be better than policy 2 ? NTT DCM clarifies shown is the average throughput for UE's having the macro cell as Pcell and they have an offloading to RRH's. Important is figure 4a that shows overall scenario 2 is providing optimal throughput, but proposal 5 obtains quite similar throughput.
- NTT DCM clarifies that first conclusion is that CA is not so beneficial if PRB usage is high, because then adding a CC with relative poor quality compared to Pcell then that UE is using resources which could have been better provided to some other UE. Even with joint scheduling in this case, you will not be provided with resources because there are better UE's.
- But the level of when it is useful to add (based on radio quality) also depends on the traffic load/availability of other UE's: i.e. when the traffic load is higher, the relative quality difference that is acceptable becomes lower.
- LG thinks all the conclusions are quite obvious and seem logical. Also LG assumes conclusion 2 could be corrected to "all CC's should have good quality". NTT DCM thinks that "good" will depend on policy, e.g. if you have max CI based policy then aggregation of good quality is important. But if you have some proportional fairness, then CC's having similar fairness is important.

- LG thinks also conclusion 3 seems logical because then we can provide the resource to the best UE. NTT DCM indicates they want to quantify the results.
 - NSN wonders if these results mean that a Pcell with not the best quality is not good. NTT DCM agrees that in principle it is best if you always connect to the same cell, but you can live without changing the Pcell if the quality is similar.
- => Noted; can keep this in mind in further work.

R2-104732: Information to be forwarded to assist Scell selection at handover NTT DOCOMO, INC. Disc

- QC wonders if the traffic load part is also important for the joint scheduler approach. NTT DCM thinks so. Also if you have joint scheduling, you only want to aggregate the UE's that can make most out of CA.
- NTT DCM clarifies if you forward multiple cells per CC, you could even aggregate if an Scell is not the best cell on a CC (e.g. best cell on other eNB), but this is not so important (small optimisation) and could be considered for later release.
- CATT wonders if both RSRP and RSRQ are forwarded ? NTT DCM assumes both are forwarded.
- NSN wonders when the source makes the list, does it have to consider the target cell load ? Or can the load only be considered in the target ? NTT DCM assumes only the target needs to consider the load. The source just provides the best cell per CC together with RSRP and RSRQ.
- Motorola wonders what is meant by "additional reporting" ? NTT DCM would like to have the UE report the best cell on other objects in case of certain event reporting.

R2-104794: The transfer of Scell list and measured results and additional UE measurement for handover Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc

- W.r.t. proposal 2, LG wonders what "available" means ? ALU does not intend to have UE take additional measurements, so only when available.
- CATT wonders if cells in the re-establishment info be selected as Scells ? ALU assumes this is up to the target eNB.
- Motorola wonders when the UE would have measurements available on other CC's ? Would these measurements have to go through filtering/TTT triggering ? ALU thinks the source eNB will not be able to create a good list of Scells based on old information.
- Nokia wonders why the measurement events did not provide sufficient information ?
- Panasonic wonders if we allow loose Scell management by source, after handover the target eNB will have to receive measurement report from UE after handover ?
- QC wonders if blind addition of Scell is really possible, or would the target need a measurement from the UE ? ALU thinks the target can request more measurements before activation. QC assumes that when we decided for multiple cells at handover, we were implying quick activation after handover. So we should not need additional measurements. ALU thinks you could activate with low MCS.
- NSN still wonders what the practical case is for Rel-10, with 1 or 2 carriers. NSN assumes providing the measurement is an optimisation if you have many CC's. Having list of best cell per CC should be enough.
- NSN agrees from network point of view, it would be nice if the UE would provide any available best cell measurement. So would this be possible for UE's to provide ?
- Samsung wonders what the main concern is for not providing this measurement result ? NSN assumes it is not useful for Rel-10 deployments.

R2-104895: SCell list provided by source eNB Huawei Disc
noted

R2-104312: Measurement forwarding at inter-eNB handover Qualcomm Incorporated Disc

R2-104420: SCell measurement reported from source to target eNB MediaTek Disc

R2-104627: Forwarding information for inter-eNB handover ZTE Disc

R2-104665: Further discussion on information provided to target NEC Disc

R2-104680: The information listed by source eNB during inter-eNB HO ETRI Disc

R2-104808: Remaining issues on Handover Motorola Disc

R2-104879: Information provided to target eNB at handover LG Electronics Inc. Disc
All 7 Tdocs not treated.

Different options:

1) Forward measurements to target eNB

- 1a) best cell for each configured CC
- 1b) best cells for each configured CC
- 2) Do not forward measurements to target eNB

Independent issue is whether we enhance UE reporting

Discussion

- NTT DCM thinks their simulations has clearly show that providing this information is usefull. If the source already has to provide the best cell on each CC, it has to be based on some information available in the source. The only request is to make this information available to the target.
- ZTE has a concern about the accuracy of the information (up to date): if the measurements are not up to date, they might not be usefull and might even lead to bad impacts (target eNB taking wrong decisions).
- NSN thinks CA will work without this, so we don't need this in Rel-10.

After offline discussion no conclusion was possible:

- Concluded that additional measurement from UE is independant issue (might also beneficial for source eNB)
- On the forwarding, intra-eNB-vendor RRM environment the policy will be known by source eNB. So it would mainly be for inter-vendor environment.
- NTT DCM has heard no technical argument against the forwarding. NTT DCM thinks in the offline it was possible to agree that the complexity is very low. NSN thinks some companies also agreed the gain might be limited. NSN thinks this is not an essential part of Rel10
- Samsung thinks inter-vendor scenario is important and Samsung sees some gains.
- Poll: should available best cell measurements be forwarded (best cell per carrier):
Yes: 21
No: 3

=> We will forward best cell measurements

- QC assumes the measurement shall be forwarded when available, but so if not available, not included. Ericsson tihnks it is a "may". We should not have mandatory requirements on eNB's. Samsung indicates normally we have no "shalls" on networks, but we do use "source includes". NTT DCM/QC tihnks the eNB shall include.
- NSN thinks it should always be allowed to include a cell without measurements (e.g. based on OAM configuration). Samsung assumes normally target knows more about the topology than the source.

Agreement:

- 1) The source eNB may at inter-eNB handover forward available measurement results when reporting best cell for a carrier in the handover preparation for SCell selection.

Other

- R2-104864: Clarification on SCell configuration failure HTC Disc
- CATT wonders if we need to differentiate configuration of Pcell and Scell. CATT thinks we should have unified approach. QC agrees with CATT.
 - Motorola thinks HTC proposal makes sense.
 - NSN thinks it is strange proposal. We do not allow partial success so far.
 - Samsung thinks this is a rare network error, so this should never happen and we should not optimise.
- => Noted: Rel89 principles apply (either total failure or total success, and re-establishment in case of non-fully comply)
- R2-104865: Clarification on SCell configuration failure HTC CR 36.331 (0469) - F REL-10
LTE_CA-core
- R2-104510: Cell Configuration during HO CATT Disc
Both not treated.

Too late/not available/withdrawn

- R2-104603 PCell change without handover Sharp Corporation Disc
=> withdrawn

R2-104837: handover information handling in CA Pantech Disc
not treated

R2-104921 Impacts of PCC change other than handover LG Electronics Inc. Disc
=> Withdrawn

7.1.1.5 Measurements in connected mode

Additional reporting

R2-104511: Additional Measurement Reporting to Assist CA Handover CATT, NTT DOCOMO, CMCC, ITRI Disc

- Motorola wonders why without this the knowledge would be outdated ? The eNB can configure a periodic measurement ? CATT agrees this is possible but this will cause additional load/many reports. Motorola assumes that when CA is configured this should not be such an issue.
- Nokia wonders if the proposal is limited to CC's where the UE has Scells ? CATT only wants available results so only for CC's for which a measurement is configured (could even be without Scell).
- Nokia assumes that if there is no event configured, the UE would not be measuring.

R2-104314: Need of additional snapshot reporting Qualcomm Incorporated Disc

- CATT wonders about proposal 2: does the additional reporting apply to some events or all configured events ? QC thinks it should apply for all events that can trigger handover.
- ZTE wonders if the cells has to have entered the triggeredlist, or any cell. QC assumed available measurements. Can be discussed in stage-3. ZTE thinks if the cell has not entered the triggeredlist, the measurement might be recently obtained ? QC sees no issue. The UE has a valid measurement it evaluates events against. This measurement would be good (basically the same measurement as used for the event check). NTT DCM assumes the measurement would be L3 filtered but TTT would not be considered. If this does not work, RRM measurements are not reliable. Nokia agrees performance requirements should already be appropriate
- Nokia wonders why the additional results are not provided in all measurement reports ? QC thinks this could be discussed, but they thought be good to avoid when not needed.
- Nokia wonders if there is no concern on the overhead for the measurement report ?

R2-104479: Additional measurement result in CA Panasonic Disc

R2-104847: Additional Measurement Reporting for CC management Huawei Disc
Both not treated

Discussion

- Motorola thinks there are already a lot of control points. E.g. you can use RSRQ to trigger a measurement for Scell. So Motorola wonders if option 3 is essential ?
 - Nokia thinks it is not essential (system can work without it), so no urgent need. If the network has set the event sensibly, then the source eNB should have quite a good idea. QC does not see how with conservative events, we can prevent too early/late reporting ?
 - NTT DCM thinks this is quite essential, otherwise we cannot avoid early/late reporting. Without this, maybe periodical reporting can be used and overhead on PUSCH might not be such a problem, but still eNB processing is impacted.
 - Nokia does not see a problem related to late/early when we have CC's in same band.
 - Ericsson thinks the additional measurements are probably useful provided that there is no additional delay in creating the report.
 - ZTE thinks another approach is to rely on, e.g. configure have an event that reports on entering the condition and leaving the condition. E.g. A3 or A6. Nokia assumes that absolute events might be more usefull.
 - Nokia wonders if it would be very bad for the eNB to wait after the handover to collect measurements and configure Scells. Is that very bad/introducing much delay ? Probably something like 400ms ?
 - If we have it, it would concern:
 - best cell reporting on each configured CC if available (FFS if carriers with no Scell)
 - FFS if the network would be able to configure this per event, or for all events
- Poll: Should we have additional measurement reporting in Rel-10:
Yes: 19

no:4

=> Will have the additional measurement reporting in Rel-10

Configurability:

- Nokia thinks there is no need to configure this, and this can always be included in the report. So a UE configured with CA would always be allowed to include. So any report the UE sends, it is allowed to include additional measurements.
- CATT thinks it would be sensible to have it configurable. E.g. for A1/A2 it does not seem so usefull.
- Huawei thinks the additional reporting is also usefull for CC management, so we can always include.
- Ericsson wonders if we want the best cell or the best neighbour ? If the serving cell is the best cell, is there any reason to report anything in addition ?
- ZTE wonders why we force or any measurement. E.g. why for ANR measurement ? ZTE thinks it should be configurable. Panasonic agrees with ZTE. Panasonic thinks also in periodic reporting, it is too much to have always this reporting.
- Ericsson would also prefer to haev it configurable, because application to periodic does not seems so make sense.
- Huawei thinks it is usefull to have the additional reporting also for periodic reporting
- CATT/ALU wonder why not other carriers (not haveing Scell) can be considered.
- Samsung wonders why configurable is more complicated ?

Agreements:

- 1) A UE configured with CA shall in any measurement report include additional available measurements concerning the best non-serving cell on other carriers than the carrier of the object reference by the measurement id.
 - FFS if there is a need to have this configurable per event.
- 2) Additional reporting is limited to carriers with a configured measurement id (i.e. measurement object is referenced in at least one measurement id; otherwise measurement is not available) and a configured Scell.
 - FFS if also the best cell measurements for carrier with configured measurement id but no configured Scell can also be included.
- 3) Normal L3 filtering applies. TTT is not applied

Other

- R2-104313: Solution for CC identification Qualcomm Incorporated Disc
- CATT wonders what the impact to the specification is ? QC repeats that there is no impact to the specification.
 - ALU assumes the behaviour is the same as Rel89 inter-freq measurements. Indeed so.
 - LG thinks Smeas is not a disabling any measurements. It is only allowed to ommit measurements
- => We confirm that for a carrier without Pcell/Scell, measurements are only performed if:
- measurement object is configured and is linked in measurement id for the concerning carrier
 - measurement gaps are configured (if needed)
 - UE is not ommitting the measurements due to S-measure
- R2-104733: New event trigger to assist Scell management NTT DOCOMO, INC. Disc
- => Updated in R2-104964 with annex
- R2-104964: New event trigger to assist Scell management NTT DOCOMO, INC. Disc
- Huawei wonders if we add carriers blindly (e.g. based intra-band case) ? NTT DCM thinks ofcourse this is not prohibited.
 - NTT DCM points out that if the A3-event on leave has to be used, in certain scenarios the network cannot get the necessary trigger for removal. E.g. in scenario 3 if you swap Pcell and Scell based on some hysteresis which is quite big and swap Scell/Pcell, there might be cases where the new Scell does not trigger the A3 event yet. So this would bring some restrictions on CC management.

- QC wonders how much the "relative QOS CC management strategy" is susceptible to delay ? I.e. could this not be handled with additional reporting ? NTT DCM agrees this is an alternative
 - Chairman wonders if the serving cell reporting we have in all reports does not ease the situation ? NTT DCM thinks the important thing is that you get the report when you need it. NTT DCM agrees it is a kind of optimisation, but still considers it important.
 - LG wonders about the amount of gain ? LG thinks A2 with reasonable threshold will provide comparable/slightly lower performance.
- => Noted (no support); not further considered for Rel-10.

7.1.1.6 PHR aspects

E.g. Type12 reporting in cases 4/5 (see minutes of RAN2#70b), multiple CC reporting restricted by UL activation ? Ask RAN1 to define reference PUSCH format ? Per-UE-PHR (wait for RAN1/RAN4 input)?

Use of reference formats

- R2-104394: Further consideration on virtual PHR Nokia Siemens Networks, Nokia Corporation Disc
- E.g. what is P_{cmx} used in Type2 calculation if only PUSCH is transmitted ?
 - ALU wonders if these proposals are proposing to revisit the decision of the last meeting (report PHR for all configured (activated?) CC's), or is it only for cases 4 and 5 ? NSN explains it is about all cases.
 - Samsung wonders if main concern is about P_{cmx} calculation ? Nokia confirms, since the MPR can vary in wide range.
 - Panasonic thinks anyway RAN4 would have to decide how the P_{cmx} is calculated if we assume virtual PUCCH or PUSCH transmission

- R2-104866: Open issues for PHR in Carrier Aggregation NTT DOCOMO, INC. Disc
-

- R2-104374: Open issues on Type 1 PHR LG Electronics Inc. Disc
 R2-104376: Open issues on Type 2 PHR LG Electronics Inc. Disc
 R2-104431: Further details of PHR handling for CA MediaTek Disc
 R2-104893: Considerations on the remaining issues of PHR ITRI Disc
 R2-104502: Virtual power headroom report Panasonic Disc
 R2-104533: Discussion on PHR remaining issues Alcatel-lucent, Alcatel-Lucent Shanghai Bell Disc
 R2-104629: PHR remain issues ZTE Disc
 R2-104751: Remaining Issues on PHR CATR Disc
 R2-104911: Discussion on Remaining Issues of PHR for CA HT mMobile Inc. Disc
 All 9 Tdocs not treated.

"Case 4: (only PUSCH on Pcell)":

- a) Only type1
- b) Type 1&2

"Case 5" (only PUCCH on Pcell):

- a) Nothing
- b) Both type 1 & 2

Basically 2 ways still seem to be suggested:

- A) Use reference format for PUCCH/PUSCH and always report all configured (FFS activated) CC's
- B) No use of reference format and only report PHR related to actual transmissions
 - b1. use PUCCH reference format but not PUSCH ref format

Can configured PHR reporting/triggering on/off per Scell ?

Discussion

- Samsung wonders if working with virtual PUCCH/PUSCH transmissions is only a matter of complexity, and all alternatives will work. Then we could try to take a decision again.
- Nokia thinks one argument is the complexity, but the other is the usefulness: how usefull is it to report something fake ?
- ZTE thinks as long as UE and eNB have the same understanding, virtual PHR can be used. ZTE assumes when CA is configured and conditions are good, parallel

PUCCH+PUSCH would occur and both Type1 and Type2 are usefull, but if the UE is on the edge, then only Type1 is usefull

- Mediatek thinks usefullness is indeed the main concern.
- Ericsson is arguing in their paper for a reference PUSCH, but Ericsson due to recent insights is also ok to inform the UE only about the PHR on the scheduled CC's if it is combined with a UE-PHR.
- CATT thinks virtual PHR does not solve all issues. So CATT thinks we should be carefull.
- QC agrees with NSN that virtual PHR might not be so usefull.
- RIM thinks using PUCCH format should not be a problem.
- Chairman points out one possible concern: if a UE configured with 3 CC's and only transmits on CC1 and CC2, and we report PHR for CC1,2 and 3, then will the virtual transmission on CC3 influence the MPR used for CC1 in the reporting ? This will only harm the reporting if the scheduler continues on the same CC's ? Panasonic thinks in this case we could assume zero power on CC3: then there would be no impact on PHR reporting for CC1 and 2 (no additional backoff), but it still would provide the P_{cm} for CC3.
- IDT thinks the first question is whether we want to report on non-transmitted CC's.

After offline discussion:

- Most companies see benefits with a per-UE PHR, so that the eNB is aware of the true PHR available.
- Several companies now think that working with virtual transmissions will not enable the eNB to determine the UE-PHR. Most companies are leaning towards thinking that if we have per-UE PHR, we do not need virtual transmissions for non-scheduled CC's.
- Samsung thinks it is a bit related to scheduler strategy. Since we have 8 HARQ processes, only not all the time when we have CA configured, there will actually be transmissions in parallel on more than 1 CA (also considering PDCCH limitations).
- CATT thinks since there is so much UE implementation freedom, it will be very difficult for the eNB to derive it if it is not sent explicitly by the UE.
- LG thinks UE-PHR is only relevant when we are operating close to power limit.

Option 1:

- PHR for all configured CC (activated?) , including virtual format, maybe no UE-PHR

Option 2:

- Only PHR for scheduled CC's, in combination with UE-PHR

- Panasonic thinks the important of UE-PHR is that the eNB is aware that the UE power limitation and applying scaling. Motorola agrees.
- IDT thinks virtual format and per -UE are independant aspects. To know whether it is a per CC or per UE problem.
- NTT DCM wonders if with option 2 we would have to revisit other decisions ? I.e. would we have periodic timer per CC ?
- RIM thinks this is all very related to UE-PHR, MPR calculations,... so we should wait for RAN1/4 progress.
- Mediatek indicates that RAN1 is considering additional information. RIM thinks situation in RAN1 is still unclear. Ericsson indicated RAN1 will try to come with answer by the end of the week.
- Samsung thinks we should not unnecessarily revert decisions. If we go for option2 there are probably more impacts to our decisions. Samsung would like to study both options a bit more. CATT thinks it would be good to have a bit more time.

1) Do we need PHR reporting for non-scheduled CC's ?

Yes [6]

No [8]

Would like to study more [11]

- Mediatek thinks this does not help. It will introduce error in MPR calculation and thus PHR reporting. Mediatek thinks virtual PUSCH formats are not needed.
- IDT thinks we will schedule CC's when they are activated. So virtual format is quite usefull.

2) Do we need Type2 PHR reporting is PUCCH is not transmitted in this TTI ?

- Samsung assumes this is quite acceptable, to ease type2 PHR triggering. NSN thinks this should also be included in the email discussion since the concerns are quite similar.

- 3) Is the prohibit timer per CC or per UE ?
- Huawei thinks this depends on whether we report all CC's or only scheduled CC's.

EMAIL DISC Ericsson [71#57] to try to progress PHR reporting w.r.t. above questions.

R2-104377: PUSCH format for PHR LG Electronics Inc. Disc
R2-104824: PH calculation of non-transmitting CC Samsung Disc
Both Tdocs not treated.

If PHR for non-PUSCH transmitting cell:

- a) format on transmitting cell*
b) reference format

PHR report: joint or together

R2-104825: PHR transmission Samsung Disc

-

R2-104513: Consideration on PHR MAC CE CATT Disc
R2-104807: Further Details on Power Headroom Reporting Motorola Disc
Both Tdocs not treated.

Discussion

- IDT assumes accuracy is same for both solutions. Samsung agrees this is no longer a valid point.
- NSN points out the timing issue: if the MAC CE is in different CC's, they might reach the eNB at different timing due to HARQ. Therefore NSN assumes it is better to group.
- CATT wonders about the blocking probability: CATT assumes the blocking probability will not drastically increase if we add one byte.
- RIM thinks grouped reporting is simpler. RIM thinks you could also truncate the PHR MAC CE if it does not fit.
- ZTE also thinks grouping is simpler. Grant should not be so small that this is really a problem. Samsung points out that we even talk about blocking in Rel89 with 2 byte size. However Samsung agrees that this blocking is not so problematic. Chairman wonders if there is an issue for handover complete ? NSN points out that there is no change w.r.t. Rel89 if we only report on scheduled CC's. NTT DCM points out that at handover, PHR is not in msg3; we only trigger periodic timer at handover
- Huawei thinks there is only a limited number of CC's, so Huawei prefers to group.

Excluding CC's from PHR reporting ?

- Ericsson thinks we already agreed that that should not be configured by the network ? NTT DCM indicates this was left open. Samsung agrees this is open.
- NSN understands this is only for overhead reduction (avoid reporting / unnecessary triggers)
- Motorola does not see an overhead issue. Ericsson agrees.
- Samsung has some sympathy for NTT DCM view, but is happy either way.
- NTT DCM could also live with all reporting.
It should be possible to exclude CC's from PHR reporting/triggering by network configuration
Yes: [4]
No: [20+]

PHR agreements:

- 1) Will only have 1 PHR MAC CE transmitted by a UE in a TTI. FFS if this is new MAC CE or redefinition of Rel89 codepoint.
- 2) This MAC CE can be included in any TB
- 3) The network will not be able to exclude certain CC's from PHR reporting/triggering

Triggers

R2-104393: PHR triggers for CA Nokia Siemens Networks, Nokia Corporation Disc
- RIM wonders what happens to the unscheduled CC ? For the unscheduled CC, the eNB will have to wait for one more period

- R2-104849: PHR for CA Huawei Disc
- (only section 2.3); Huawei thinks in extreme cases one CC could not be reported for a long time.
 - ZTE thinks in Rel-10 we only have intra-band UL. So is it really possible to have pathloss change triggers at really different times as in the figure ? Huawei thinks PHR is not related to pathloss, but also to e.g. P_{max} on the concerning CC. ZTE clarifies that the pathloss change would still be at the same time. NSN thinks since we have agreed power ref is either pcell or Scell it could be different.

R2-104829: Discussion on PHR triggers SamsungDisc

R2-104512: New PHR trigger CATT Disc
Both Tdocs not treated.

PHR triggered for all (conf/act) CC's when one of CC's pathloss changes above threshold
PHR triggered for all (conf/act) CC's when ref CC's pathloss changes above threshold

Discussion

- Ericsson thinks if we would have the reporting only for the scheduled CC's, Ericsson assume we might need a per-CC prohibit timer. If we have reporting of all CC's, then a per UE timer would be ok.
- Samsung thinks we should be future proof so that we do not have to change in Rel-11. Samsung agrees with Ericsson.
- Nokia wonders if we have per CC prohibit timer, what happens when one CC meets the PHR trigger criteria ? Is only that CC PHR reported ? Ericsson thinks only that CC would have to be reported, but this can be discussed. LG thinks we agreed on one format including all CC's.
- Huawei is fine to continue discussion or decide.
- NSN sees no harm to always report all scheduled CC's. Mediatek also has the same understanding.

UE-PHR:

R2-104823: Discussion on per UE PHR SamsungDisc

R2-104534: The need of UE PHR and way forward Alcatel-lucent Disc
Both not treated

Other

- R2-104835: Need of consideration for PA level power limitation? SamsungDisc
- Mediatek wonders if the PA issue is only for intra-band or also inter-band ? Samsung thinks multiple PA's might be used intra-band non-contiguous carriers.
 - Mediatek thinks it is only for the intra-band case, if multiple CC's are handled by one PA. Samsung agrees inter-band case is not a problem for Rel10.
 - Chairman assumes it would only be a problem if we have multiple PA's in intra-band, the PA's have different max from UE max, and one of the PA's is handling more than 1 CC. Mediatek agrees.
 - Mediatek thinks it might be more of a future problem
- => Noted; can think more about this.

Too late/not available/withdrawn

R2-104459 PHR Reporting for CA Ericsson, ST-EricssonDisc

R2-104470 PHR reporting for CA Ericsson, ST-EricssonDisc
=> Both withdrawn

7.1.1.7 Other

E.g. UE (measurement)capability modelling (dependant on RAN4 input),...

R2-104480: Confirmation of Cell configuration set based on SIB2 linking in CAPanasonic Disc
General

- Terminology used in Tdoc is a bit confusing
- NSN wonders whether the discussion is related to Scells as seen by the connected UE, or cells as seen by IDLE mode UE's during camping ? Panasonic focussed on connected mode.

- QC wonders if UE will be aware of SIB2 linking for Scells since this is all configured by dedicated signalling ? Panasonic would like to clarify the SIB2 linking. QC thinks the UE does not care about the SIB2 linking in an Scell. The UE cares about the Tx-Rx indicated by dedicated signalling.
- DT thinks it should be allowed to indicate a different configuration for the commonConfiguration to a CA UE than the broadcast SIB2 configuration by that cell.
- Samsung points out that before when discussing handovers, we assumed dedicated provided information and broadcast information would be the same.
- NTT DCM thinks it makes sense if there is no SIB2, to be able to indicate values to a UE with dedicated signalling (non camping cell). But NTT DCM does not see a reason to signal different values to a UE with dedicated signalling if there is a SIB2.
- Ericsson thinks in principle any parameter can be different between the dedicated conf and the SIB2 conf. Ericsson thinks handover is different because the UE checks after handover whether he received the same information and otherwise will immediately overwrite. But now the UE is never supposed to read the information from the Scell broadcast. Samsung sees no big problem, but e.g. when the UE goes to IDLE he would always have to reread.
- Huawei thinks if there are differences, there could be problems e.g. with PHICH.
- Nokia thinks we should look at how it is seen from the UE: if the UE only receives the dedicated information and not the broadcast, there seems no problem.

Confirmation of current status:

- a) Pcell consists of DL resources and SIB2 linked UL resources
- b) Scell consists of DL resources and optionally UL resources as configured with dedicated signalling
- c) Towards one CA UE, UL resources are never part of two configured cells
- d) We assume Scell "commonConfiguration" provided with dedicated signalling to a CA UE e.g. w.r.t. UL resources could differ from the SIB2 configuration potentially broadcast by that cell. However this may be revisited if any problems/complexity are detected with this principle.

- QC wonders if there is impact to UE capability, e.g. w.r.t. default Tx/Rx separation.
 - CMCC wonders C and D makes sense in Rel-10. So far RAN4 seems only to consider scenarios with the same BW in UL and DL. DT thinks in general these cases are interesting. We should really start to understand how in Rel-10 the UE capability w.r.t. CA is signalled.
- => Noted

R2-104434: Signaling of PDSCH Starting Position for Cross Carrier Scheduling MediaTek Disc
Proposal 1:

- CATT thinks this is more related to cross carrier scheduling. It is only needed to inform the UE about PDSCH starting point of cross carrier scheduling is applicable. If the Cell is not cross carrier scheduled, the UE can read the PCFICH. QC agrees with CATT, so this is an optional part of the Scell configuration. Mediatek agrees.

Proposal 2:

- Mediatek assumes are used when different references are used. Mediatek assumes there is on reason for second starting point.

=> Will wait for RAN1 for points other than point 1.

Agreement:

- 1) For any Scell scheduled from another cell, RRC shall configure a PDSCH starting point (reconfirmation).

R2-104432: MBMS reception in CA MediaTek Disc
Proposal 1:

- QC wonders what is special about the Pcell ? QC agrees that an MBMS capable UE should be able to receive MBMS on some carrier, but why the Pcell ? Mediatek sees a difference for MBMS control information acquisition.

- LG thinks Pcell is special because normal UE only receives broadcast from Pcell. LG point out that previously we discussed this aspect and indicated everything is left to UE implementation. LG is fine to leave it to UE implementation.
 - LG thinks scenario 3 is not that realistic because we do not have any frequency convergence in LTE. Mediatek wonders why scenario 3 is not possible ? LG assumes FLC is needed for this so that the UE can select the carrier with the services he is most interested in. In LTE carrier 1 will never indicated the services provided on carrier 2.
 - Note that so far we have no signalled capability for MBMS.
 - QC wonders if we can leave it completely to UE implementation. E.g. if some UE's support only on Pcell, and others support on Scell, the network might want to know. Mediatek agrees.
 - Nokia thinks the same reasoning does not seem to hold for Rel9 where we do not indicate this to the network. QC agrees there is a potential problem in Rel9 in connected.
 - Nokia thinks the issue is more general since there will also be Rel-10 non-CA UE's. Samsung agrees with Nokia that the same issue exist in Rel9 and there we accepted it.
 - Mediatek wonders why proposal 1 would not be acceptable ? HTC wonders about service continuity at Pcell change. QC wonders if we agreed for Rel-9 whether all MBMS UE's have to support MBMS reception in connected mode.
 - Huawei/CATT wonders if we provide SIB13 by dedicated signalling for Scell ? QC thinks if we have to support MBMS in Scell reception, we might consider this. But we should be requirement driven. Chairman wonders why such a UE could not read SIB13 from concerning Scell.
 - Ericsson thinks we should wait for the discussions on MBMS enhancements and see if as a result anything is needed. Otherwise Ericsson is fine to leave it to UE implementation. Panasonic agrees. We already discussed in this with R2-102357 and then concluded no enhancement is needed.
- => For now assumed to be left to UE implementation i.e. operator <-> vendor discussion as in Rel-9.

R2-104293: Considerations on Cross-carrier Scheduling Potevio Disc

- Ericsson wonders how often the linkage would be changed ? Potevio assumes it could depend on the service type. RIM understood that the main reason for cross carrier scheduling is for hetnet, and thus there will not be frequent changes.
 - Huawei wonders if the CIF needs to be changed if the linkage is changed ? Potevio assumes so. RIM thinks this depends on whether the CIF is unique or not.
 - Motorola agrees with RIM and Ericsson.
 - Chairman assumes changing cross carrier scheduling will not happen often and is not time critical, so no reason to do it in MAC.
- => Will be done with RRC signalling

R2-104563: Reception of PWS messages for UE supporting CA LG Electronics Inc. Disc not treated

7.1.2 Stage-3 Control Plane

7.1.2.1 Running CR

Latest version of the running CR for 36.331 from rapporteur, as well as corrections of obvious errors from other companies.

=> Including email outcome for [70b#13] - LTE: Carrier aggregation RRC CR (Samsung)

Result of email discussion[70b#13] - LTE: Carrier aggregation RRC CR

R2-104516: Draft CR on introduction of Carrier Aggregation Rapporteur (Samsung) TP 36.331 -- B REL-10 LTE_CA-core

- Motorola thinks we change every instance of serving cell to primary cell. Was this the intention ? Rapporteur assumes this was the agreed way forward. Motorola is ok, but we should make sure it also always works for the non-CA UE. Current assumption is that there is always a primary cell in connected mode.
- Motorola thinks in ASN.1 the definition of A6, it would be good to add " on same frequency as secondary cell". Rapporteur thinks already in the procedure text (what the applicable cells are) this should be clear. We also do not have a similar clarification for the other events. Can be checked offline.

- NSN might still reconsider where we place the Scell parameters.
- NSN wonders if we already have to talk about primary cell at connection establishment, or only when the first Scell is added ? Nokia assumes for Rel-10 UE there is always primary cell. NSN wonders if this is indicated somewhere ? Rapporteur agrees this might be usefull.
- => Agreed as baseline for further work. Rapporteur will provide update after this meeting reflecting decisions from this meeting in R2-104991

- R2-104429: Scell management in RRCConnectionReconfiguration MediaTek CR ? - - ? REL-10 LTE_CA-Core
- Rapporteur agrees the indicated lines should talk about RRCConnectionReconfiguration message rather than referring to the IE radioResourceConfigDedicated
 - => Change can be included in R2-104991

7.1.2.2 Other

Scope: Common IEs

- R2-104828: Further consideration on common L1 parameters SamsungDisc
- Huawei agrees with proposal 1 and 2.
 - => Proposals 1 & 2 are agreed
- R2-104423: Discussion on undetermined common information for dedicated signalling MediaTek Disc Cell Identity
- => Agree no need to provide for Scells
 - P-Max
 - => xcell (i.e. for each serving cell separately)
 - P-Max-UE
 - CATT also assumes this parameter is not needed.
 - NSN wonders we remove it because other groups did not define it ? Mediatek does not know what the parameter would be. Maybe we can add something later when the situation is more clear. Motorola thinks we can remove for now. Ericsson sees no need to have it: RAN4 has indicate max UE power according to UE capability
 - => Remove parameter
 - freqBandIndicator
 - Samsung wonders if the UE has to recognise whether this information is not needed e.g. to detect whether the parameter is intraband or inter-band. Samsung wonders if ns is sufficient for RF requirements, or whether the band needs to be known.
 - => Can remain as FFS for xcells (include in CR with FFS)
 - prach-ConfigIndex/prachConfigOffset
 - Already covered
- R2-104630: Discussion on category of common parameters for CA ZTE Disc
- => Updated to R2-104987
- R2-104987: Discussion on category of common parameters for CA ZTE Disc
- First table is covered by current discussion so can be skipped. So discuss only second table.
- Ericsson wonders about ULRefSignalPUSCH, why is this common ? ZTE is not really sure. Samsung thinks it should be xcell
 - => ULRefSignalPUSCH should be xcell
 - Samsung thinks maybe indeed enable64QAM common because of same eNB, but Samsung thinks we should only do this when we are really sure
 - => enable64QAM should be xcell
 - W.r.t. csg-Indication, QC wonders if we can add a csg cell as Scell ? If we have it as Pcell only, the network could add a csg-cell as Scell and the UE would not know. NSN assumes it is sufficient for Pcell. There is anyway nothing UE can do with it.
 - => With the above two changes, rapporteur can use the table to update the RRC CR
- R2-104514: Further Study on Common Infomation CATT Disc
- R2-104775: Further discussions on CA configurations Ericsson, ST-EricssonDisc
- Both Tdocs not treated

Scope: Dedicated IEs

- R2-104834: Further consideration on UE dedicated L1 parameters SamsungDisc

Proposal_1: PUSCH-ConfigDedicated information should be xCell.

- NSN supports

=> Agreed

Proposal_2: cqi-ReportModeAperiodic and nomPDSCH-RS-EPRE-Offset information should be xCell.

- Ericsson would prefer to have cqi-ReportModeAperiodic as FFS since RAN1 is still discussing it. There could e.g. be some changes to the parameter. Samsung wonders if we can agree xcell, but mark as FFS. Ericsson is ok.

=> ReportModeAperiodic is included as for xcell, but marked FFS.

=> RS_Offset can be included as offset

Proposal_3: RAN2 is asked to discuss whether CQI-ReportPeriodic is included in the pCell's extension or the corresponding sCell. We propose CQI-ReportPeriodic would be xCell.

- NSN is fine to include in xcell.

=> Included as xcell and mark FFS

Proposal_4: TPC-PDCCH-ConfigPUSCH information should be xCell.

- Ericsson indicates RAN1 is still discussing whether this is applicable for Scell.

=> Include as xcell with FFS

Proposal_5: we should wait for RAN1 decision on cross carrier scheduling for further extension of TPC-PDCCH-ConfigPUSCH and TPC-PDCCH-ConfigPUCCH.

=> Noted

R2-104631: Discussion on category of dedicated parameters for CA ZTE Disc

=> Updated to R2-104988

R2-104988: Discussion on category of dedicated parameters for CA ZTE Disc

Table 1:

=> Deactivation timer is scope "common"

Table 2:

- NSN wonders if all this is not already included ? ZTE indicates the parameters from table 2 were not explicitly discussed. Rapporteur indicates that the table last time was a bit confusing, because for IE's where the handling was assumed to be the same, not all subfields were the same, but only first subfield was shown. NSN thinks it was fine that way, because if the whole IE group was handled together, we do not have to split.

=> Rest is noted

Scope: ASN.1

R2-104519: General issues on CA configuration information structure SamsungDisc

Proposal 1:

- NSN wonders what the implication of the agreement would be ? Samsung thinks this is a general principle for people to consider when making proposals. Still we have to decide on a case by case basis what we do.
- Huawei wonders when we introduce to create a new IE for SecCellParameters ? E.g. if we can save 4 bits, we create a new IE ? Samsung assumes we have to decide on a case by case basis.

Proposal 2:

- Rapporteur would like to use this principle when capturing parameters in the draft CR

Proposal 5

- CATT wonders if the "PDCCH for scheduling" should be in physicalConfig ? Ericsson wonders if we include all cross carrier related parameters in one new IE group ? NSN thinks this might be possible.

Agreements:

- 1 Guideline: avoid introducing specific versions of IEs when differences are small and can easily be reflected by modification of the existing IE e.g. by introducing a condition.
- 2 Initially specific versions of IEs may be introduced when this facilitates capturing the current status. A comment should be added to reflect that re-use of the existing IE is FFS.
- 3 Introduce specific versions of the IEs UplinkPowerControlDedicated and UplinkPowerControlCommon
- 4 The (top level) information structure for the cell-specific parameters of sCells need not reflect in which SIB the parameters are provided for pCells.

- 5 Place the new parameters as follows:
- Deactivation timer: MAC-MainConfig
 - Cell/ PDCCH used for scheduling: MAC-MainConfigSecondary
 - Pathloss reference: UplinkPowerControlDedicatedSecondary

Delta signalling and cell Index

R2-104790: Delta Configuration for reconfiguration and handover Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc

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R2-104294: Delta signalling in Carrier Aggregation Potevio Disc

R2-104787: CIF and Cell Index Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc

R2-104793: The need of Cell Index for PCell Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc

R2-104896: Cell index for Pcell Huawei Disc

R2-104920: Cell Index allocation for PCell LG Electronics Inc. Disc

All 4 Tdocs not treated

Discussion:

General:

- Huawei wonders if the network can use the same index to configure a new Scell ? ALU thinks yes, with a delta to the previous configuration. Huawei wonders if that means we have two approaches for Scell addition ? ALU thinks the network can choose. Huawei thinks this is unnecessary complexity, and one approach for Scell addition would be enough.
- Nokia assumes Scell configuration is delta to previous Scell configuration. If we have no Scell configuration yet, it should be complete configuration.
- Motorola thinks if we use a delta with the same index to change e.g. L1 identity, it seems like a hidden cell addition.
- ALU is not sure about the complexity. We could restrict it to having the same freq/L1 identity if there are concerns.
- Nokia thinks from configuration point of view this might not be so complex, but what about L1 complexity ?

Proposal 1:

- Nokia understands this to be the same as in Rel89 ? ALU confirms. The proposal is to also handle NCE's in the Rel89 Pcell structure conform Rel89.
- CATT wonders if the target Pcell at handover is also handled this way ? ALU confirms that this is the intention.
- Nokia wonders what the impact to stage-3 is ?

Proposal 2:

- Nokia thinks we should add an FFS whether the freq/L1 identity can be changed.
- Samsung wonders if a Pcell becomes Scell, we also would use the full configuration for the new Scell. ALU clarifies that if this index was already used for an Scell, we could use delta signalling to the previous contents of that Scell (if we would allow changing freq/L1 id).
- CATT wonders if it is possible if it is possible to configure an Scell with delta to the Pcell ? ALU proposes this is not possible: the problem is that the configuration for a Pcell and Scell are different. So we would need a mapping. Therefore ALU is proposing full configuration
- NSN wonders if there is problem if we have 2 Scells in the source, and 2 Scells in the target ? ALU indicates we link with CellIndex.
- Nokia is quite ok with the proposals. Anyway it seems difficult to map Pcell to Scell parameters and vice versa

Proposal 3:

- Panasonic thinks we do not know the difference between Scell and Pcell yet, so we better wait. It is also related to proposal 2. Panasonic thinks we should not exclude delta signalling now.

Proposal 4:

- Huawei thinks there would be benefit for having cell index for Pcell. ALU thinks we could handle it implicitly. CMCC would also like to have a index value: there are some other cases where the value is needed (e.g. CIF, PDCCH scheduling,...). CATT has same concern. E.g. maybe we need for PHR report. ALU thinks UP can decide this. Maybe Pcell index is in a fixed place.

- With the ALU proposals of delta signalling, we could agree that Pcell Index is always "0". However it makes the linking to CIF less obvious. ALU sees no absolute need for cell index from L3. E.g. for cross carrier scheduling we could list ENUMERATED "pcell, 1,2,3,4". Chairman thinks we could also have ENUMERATED "0,1,2,3,4" with 0 being the Pcell.
- If we allocate no value (not even implicit) we cannot reuse the CellIndex for CIF.
- Motorola wonders if there is an advantage for not explicitly assigning a value to the Pcell index ? ALU thinks that when you go from non-CA to CA, you would have to indicate a value for an already existing cell. Nokia thinks the whole CellIndex is part of the CA configuration.
- Samsung wonders if not most companies are fine with an explicit index ? In that case at handover, we can change the Pcell and the Cell Index for the Pcell. Huawei wonders what the problem is with a default value ? Nokia thinks fixed value for Pcell seems simple. NTT DCM also agrees that implicit 0 seems simple approach.
- ZTE wonders if we have the CellIndex of Pcell always "0", and RAN1 agrees to have the CIF equal to CellIndex, is there a problem ?
- LG agrees there is no real benefit from explicit signalling.

Proposal 5:

- Nokia wonders if this is not the same as proposal 3, since we have released the configuration of SCells at re-establishment ? ALU agrees this is the same.

Agreements:

1: For the reconfiguration of dedicated information of the PCell performed under reconfiguration procedure, the delta-configuration of the PCell is the same as in Rel-8/9 serving cell where the Need Code ON and OR will be based on the existing PCell configuration and the new PCell configuration. Delta configuration of the Pcell configuration outside of the Rel-8/9 configuration can also be performed towards the existing configuration.

2: For the reconfiguration of dedicated information of a SCell performed under reconfiguration procedure, if the reconfiguration is on an 'existing' (can be frequency or Cell Index [if accepted to be used] but not both) SCell, the delta configuration shall be based on the configuration of the existing SCell. FFS if Frequency/L1 identity can be changed in this way.

3: It will be possible to provide a full configuration for a new SCell.

4: Cell index for Pcell will be "0" always. No need to signal this value (implicitly allocated)

Other

R2-104489: Open issues in running CR to capture Carrier Aggregation Nokia Corporation, Nokia Siemens Networks Disc

=> Updated to R2-104986

R2-104986: Open issues in running CR to capture Carrier Aggregation Nokia Corporation, Nokia Siemens Networks Disc

Proposal 1:

- CATT wonders if this impacts the LPP protocol ? NSN assumes that if we would consider multiple servicing cells, that would clearly be an enhancement and have more impact to LPP.
- QC assumes there is no substantial impact. Maybe a note should be added to indicate that serving cell is primary cell, or replace.

=> Agreed

Proposal 4:

- Nokia wonders what the current Rel89 behaviour is ? It seems from ASN.1 that always the serving cell measurement has to be done, and then maybe an additional measurement ? Nokia thinks maybe serving cells do not have to be mandatory included, so only primary cell is mandatory to be included ?
- Samsung assumes that in Rel89 we are not so concerned, so then also in Rel10 we do not need to be so concerned, so that would mean only primary cell. Motorola thinks the logical think would be to mandate all the serving cells; so at least all the serving cells and maybe more.

- LG assume there will be very little delay if we would mandate all serving cells to be included.
- => Can think further about when first measurement is triggered. E.g. can it only be triggered when a measurement result is available for all serving cells ? Or already when only primary cell measurement result is available ?

Proposal 5:

- Nokia points out it is used in Stage-2, but no strong opinion.
- Rapporteur was a bit uncertain how to introduce this in the ASN.1, since it would look P_Cell ?
- Motorola supports the proposal.
- NTT DCM wonders about ASN.1. We now use "SecCell". We consider it one word, so "Scell" and "Pcell".

Proposal 6:

- Rapporteur wonders if this should also impact the parameter names in the equations like Ocp instead of Ocs ?

Proposal 7b: measobject for all secondary frequencies

- Samsung wonders if it is a measurement id, or a measurement object ?
- Nokia wonders why we have the rule in Rel89.
- => Keep FFS.

Proposal 8:

- LG wonders if handover is ever used for Scell addition/removal ? Otherwise we could count handovers ?
- Motorola wonders whether we should exclude inter-freq handovers ? CATT agrees. Samsung also thinks we might need to enhance, but we can accept counting handovers as baseline.

Agreements:

- 1: Replace the "serving cell" with "primary cell" whenever considering UE RX-TX time difference measurements
- 2: Clarify that neighCellConfig serving cell is pointing to "serving cell on this frequency, if one exists. Otherwise consider serving cell to be primary cell" i.e. add yellow parts as shown in contribution.
- 3: In case of autonomous gaps it is allowed for UE to abort communication on all serving cells (like in REL8 and 9)
- 4: We assume a first report in case of "*reportStrongestCells*" can only be sent when the UE has measurements for all configured serving cells available.
- 5: Will introduce in the abbreviation section "SCell" and "PCell", and use it throughout RRC.
- 6: Replace "serving cell" with "Pcell" in events A3, A5 and B2 (including param names)
- 7: Replace "serving frequency" with "primary frequency" in event A3
- 8: Count handovers (reconf with MCI) for speed dependant scaling (like in Rel89)

- R2-104860: CA configuration before security activation Huawei Disc
- CATT support the proposal. ZTE wonders if there is any problem to allow it before security ? Huawei thinks it is useless. Nokia agrees with Huawei. Samsung also agrees. NSN also agrees
 - => Rapporteur will capture restriction in 5.3.1.1 as constraint on the network.
- R2-104515: UL Absence Indicator for Secondary Cells CATT Disc
- NSN thinks maybe we should decide only after the grouping is more clear.
 - Samsung thinks typically in case of functionality which we can configure, change and release, we would use a CHOICE with setup/release. Would that not be a good option here as well ?
 - => Can think more in the future.
- R2-104791: Transferring of List of candidate SCells Alcatel-Lucent, Alcatel-Lucent Shanghai Bell Disc
- Chairman wonders if we don't miss frequency information in the proposal ? ALU indicates the CellIdentity is unique.
 - Ericsson wonders why we need the security info for the Scell list ? ALU thinks it anyway allows re-establishment. CATT shares the concern with Ericsson: security information is not needed for candidate Scells. ALU wonders if it is likely that cells would not be prepared for re-establishment, but they would still be a candidate for Scell addition ? CATT assumes

there is no direct relationship. Ericsson thinks the security is only useful for X2 handover, not for S1. Huawei agrees it is not suitable to re-use re-establishment because the indicated cell might not even belong to the target eNB.

- NSN indicates that current rapporteur CR has an indication in the RRM configuration, which seems more logical.
 - NTT DCM agrees with Huawei. This best cell does not need to belong to the same target eNB, and then we should not provide security information.
- => Should include a separate list in the RRM-Config, with no security information present, but with RSRP/RSRQ optional.

R2-104435: Acquisition of MBMS parameters MediaTek Disc
R2-104491: Indication of SCell in the measurement report ASUSTeK Disc
R2-104772: System Information Handling for SCell Fujitsu Disc
All 3 Tdocs not treated

Continuation up to next meeting

R2-104991 RRC running CR: EMAIL DISC Samsung: draft available on Tuesday, finalise by end of second week.

7.1.3 Stage-3 User Plane

Agenda item 7.1.3 was treated in a parallel session on Wednesday afternoon. Its report was agreed separately on Friday in the main session under agenda item 12.1 in R2-105201 (see also Annex A).

7.2 WI: Relays (RP-091434)

(LTE_Relay-Core, leading WG: RAN1, started: Dec. 09, target: Dec. 10, WID: RP-091434)

7.2.1 Stage-2

7.2.1.1 Stage-2 corrections

Proposals from rapporteur to correct/improve current agreement status in 36.300 shall be submitted under this agenda item. Also proposed non-contentious corrections to the stage-2 can be submitted here.

In principle agreed CR

R2-104269: 36.300 CR for stage 2 RAN #70bis agreements of relaying Ericsson, ST-Ericsson
=> Endorsed as baseline for further work
=> Will see update of the CR reflecting also discussions from this meeting in R2-104998

Other:

R2-104699: Correction of Transport Layer address handling for S1/X2 signalling in DeNB Huawei Disc not treated

7.2.1.2 Control plane procedures

E.g. do we want to group all new functionality in (one?) new RRC procedure independent from procedures used for normal UE's? Or integrate in existing RRC reconfiguration procedure? If so, what functionality is supported by this new procedure(s)?

=> Including email outcome for [70b#14] - LTE: Relay recovery (ALU)

=> Including email outcome for [70b#15] - LTE: Who determines RN Type/subframe part and how is this communicated (ALU)

Result of email disc [70b#14] - LTE: Relay recovery

R2-104756: Report of email discussion [70b#14] - LTE: Relay recovery Alcatel-Lucent (Rapporteur)
-

R2-104396: RN behaviour from Idle after RLF Nokia Siemens Networks, Nokia Corporation Disc not treated

- R2-104574: The procedure selection for NAS recovery New Postcom Disc withdrawn
- R2-104855: The procedure selection for NAS recovery New Postcom Disc revised in R2-104931
- R2-104931 The procedure selection for NAS recovery New Postcom Disc not treated

Only ATTACH, or allow NAS recovery?

NAS recovery

- QC wonders a mandatory features for UE's today ? QC assumes so. Would it become mandatory for RN's then also ? Leaving it up to RN implementation might mean it becomes mandatory. Ericsson would like to allow it but not mandate it.
 - NSN wonders how we filter out what UE function is mandatory for the UE but not for the RN ? NSN assumes we cannot forbid NAS recovery, but NSN assumes it will not be widely used.
 - NewPostcom thinks NAS recovery should be a mandatory step.
 - LG thinks NAS recovery is not beneficial.
 - QC proposes a note in stage-2 to indicate NAS recovery is not mandatory for RN ? NTT DCM thinks NAS would have to indicate. DT thinks this can be left to implementation. NSN thinks we should not start such a list because then we would have to be exhaustive. QC would prefer to mention that it is optional for the RN. Huawei thinks we should not specify anything in RAN2 specs.
- => No need to forbid NAS recovery over Un. Based on analysis so far it can work, but only beneficial in quite rare cases (failing RRC re-establishment, but succeeding NAS recovery to same eNB) so we will not spent effort in making it working (if there would be problems) in Rel10. No impact to RAN2 specs.

Capture release in the RN

- If we capture, it would only be in stage-2.
 - Huawei indicates that at eNB power on/off, there is no specification on how to handle UE's. Same approach can be followed here.
 - ALU thinks main aspect is that there is no requirement on the DeNB to maintain any contexts if the RN attaches. Ericsson agrees that the DeNB is not required to keep the contexts/relink the contexts. Ericsson thinks it is sufficient to indicate it in the minutes.
 - QC thinks ATTACH means this is like new RN, so it should be obvious that there is no context keeping/relinking.
 - LG wonder why this is not to be captured in the stage-2 ? Ericsson thinks both RN and DeNB are network nodes and there is no need to specify this type of RN interworking.
- => Agree that when RN performs ATTACH, it shall release all UE contexts. As a consequence there is no requirement on a DeNB to keep UE contexts for an RN that Attaches. No need to capture this in the stage-2.

Result of email disc [70b#15] - LTE: Who determines RN Type/subframe part and how communicated

- R2-104541: [70b#15]-LTE: Who determines RN Type/subframe partitioning and how is this communicated Alcatel-lucent Disc
-

- R2-104701: Consideration on RN Type Decision Issue Huawei Disc
- R2-104810: RN configuration and resource partitioning of Un Ericsson, ST-Ericsson Disc
- R2-104871: RN type and Un/Uu configuration NTT DOCOMO, INC. Disc
- all 3 Tdocs not treated

At startup of RN, functionally two options (?):

- 2) RN informs type to DeNB
- 3) RN informs capabilities to DeNB, and DeNB takes decision
 - even combined with Uu freq configuration ?

Discussion

- Vdf thinks that given the RAN3 LS, the possibility to configure parameters before during step 1, option2 seems the logical approach. QC agrees with Vdf and wonders if other companies see anything broken with option A ?
 - NTT DCM wonders if phase 1 is mandatory i.e. any necessary configuration needs to be preconfigured in OAM ? NSN thinks you preconfigure in OAM or you would have to configure in RN.
 - DT wonders if the network is in control of the Un frequency ? QC assumes it is part of the DeNB cell list. Huawei agrees operator can control the Un frequency.
 - Ericsson thinks it should be sent in a separate RRC message.
 - NTT DCM wonders why we have to inform the DeNB at all ? Why did OAM not also do this ? NTT DCM assumes we should either do everything or nothing.
 - ZTE wonders if you actually get all parameters in phase 1, or only DeNB cell list ?
 - ZTE is not sure OAM can communicate with DeNB.
 - DT thinks the RN/Uu configuration can be done by OAM. QC wonders if that means DT favours option 1, i.e. everything is preconfigured and aligned between RN and DeNB.
 - Vdf does not favour option 1. Option 2 or option 4, but option 4 seems too much for Rel-10.
 - NSN option2 nicely fits the RAN3 agreements. QC agrees. Ericsson agrees; this will avoid alignment between OAM systems on whether subframe configuration is needed or not.
 - Newpostcom wonders what the DeNB does if it does not support the mode indicated by the UE ? DT thinks a DeNB should be able to reject a request. NTT DCM thinks not all DeNB's will support inband.
 - III thinks the RN could be preconfigured with a configuration that it is inband in some DeNB's and outband for some other cells.
- => RN will be aware of its type somewhere during (or prior (FFS)) phase 2 and can indicate this type to the DeNB. FFS what RRC message is used.

Communication between RN and DeNB

R2-104761: RN configuration signalling Alcatel-Lucent Disc

- => Agree that we should carefully asses for each parameter whether it is signalled in RRC or some other protocols

R2-104648: Considerations on the relay parameters need to be determined at DeNB ZTE Disc

- Huawei thinks for parameters for the RN acting as eNB, they should be configured as for normal eNB i.e OAM. For parameters related to radio, RN can do it based on its knowledge.
 - ZTE does not exclude OAM provisioning. ZTE wanted just to list the parameters with some dependancy.
 - ALU wonders about the operating band ? Is this the Uu operating band ? ZTE thinks DeNB could maybe overwrite the Uu freq, but is fine that this is no longer possible due to previous discussion.
 - LG assumes if RN-Uu and Un have different frequency, some of the parameters are not linked. Also some of the parameters RN can derive from the Un configuration.
 - NTT DCM wonders about the cell identity from routing perspective ? The cell identity should be recognised in the network as being part of the DeNB. NSN agrees that without interaction between DeNB-OAM and RN-OAM this might be difficult to sync up. Ericsson thinks we should try to avoid Uu parameters. Ericsson thinks we should wait for RAN3 what they decide w.r.t. cell identity. NTT DCM thinks if for this case we want coordination between OAM systems, we could have done for the RN type. NSN thinks it is the same for home-NB: some coordination is still required. NEC agrees with NSN. ZTE points out that some of the problems are specific for the inband RN case.
 - NSN does not agree to the proposal in the contribution: it is true that some of the parameters might be influenced/depending by DeNB configuration. ZTE agrees. ZTE does not propose to signal them on RRC.
 - QC thinks many of the parameters for Uu the RN can figure out itself knowing the Un configuration, or its OAM.
- => Should try to avoid signalling RN-Uu related parameters on Un-RRC in Rel-10

Terminology

R2-104539: Stage-2 description of relay types Alcatel-lucent Disc

- NTT DCM wonders if inband full-duplex is Type A or Type B ? ALU indicates as type B, however this type is no longer is considered part of release 10, so ALU does not explicitly address this type.
 - RIM thought it had not really been ruled out. RIM thinks we already have Typ1,1a and 1b. Why can we not use this ? ALU had a CR last time with 1,1a and 1b and then comments were made that DeNB only care whether subframe configuration is needed or not. Ericsson agrees we do not need to differentiate all the types of the SI. We only need a RN-Type that need subframe configuration, and a type that does not need a subframe configuration. Ericsson is fine with a new definition or not. But Ericsson thinks that e.g. dedicated SI provisioning is probably not always used to a TypeA, but only when it is actually configured with a subframe configuration. ALU thinks an RN is really only TypeA when the subframe configuration is configured.
 - ALU wonders if there is a requirement to change from Type A to Type B ?
 - NSN is not sure about the benefit of the new terminology. RIM thinks it is important to have consistent naming in all 3GPP specs should we should use 1,1a,1b.
 - QC thinks we might have relays which are type A or type B capable if we want to introduce this in the future. Ericsson agrees this interesting part is how the RN is operated
- => Noted; please continue offline whether any new terminology is needed

R2-104650: Re-considerations on RN types ZTE Disc
not treated

Integrated reconf or separate?

R2-104900: Message structure for relay configuration Qualcomm Incorporated Disc
- CATT also thinks CQI is a problem if we use separate procedures.

R2-104608: How to Capture RN Related RRC Configuration FunctionalitiesCATT Disc
-

R2-104923: Un Reconfiguration message for Type-1 RNs LG-Ericsson Disc
Proposal 2:

- QC wonders why an independant procedure ? Could we not define one procedure and be able to include that one message in other messages.
- Ericsson thinks the RLF case should not be a problem: the subframe configuration is discarded so there is no problem.
- Ericsson thinks for e.g. intra-cell handover, can you not use the old configuration with the old PDSCH starting point to this UE for some time ? The DeNB will know that there are some RN's with the wrong configuration. So the DeNB could have delayed the PDSCH starting point reconfiguration.
- ALU thinks this is a separate issue.

=> Noted; can think a bit more about this

R2-104397: New procedures for RN Nokia Siemens Networks, Nokia CorporationDisc

R2-104876: The new RRC procedures for RN LG Electronics Inc Disc
Both Tdocs not treated.

Separate procedure or integrated procedure ?

- *Option 1: Independent procedures for Uu and Un reconfiguration*
- *Option 2: Transparent containers in Uu-Reconfiguration message, and a separate Un reconfiguration procedure that could be included in the containers.*

Discussion

- Ericsson thinks it would be ok with separate procedures. No real problem has been identified with having a separate independent procedure. In case of misalignment we could specify rules to mask e.g. the CQI transmissions with the MBSFN subframe configuration.
- RIM assumes the subframe reconfiguration will not happen very frequently. QC thinks "together" is not possible . ALU agrees with Ericsson. ALU wonders if the CQI is the only parameter that is causing a problem ? QC admits CQI is the only parameter they have identified a problem for. Huawei thinks we can ask RAN1 whether CQI is really a problem
- RIM assumes D-SR has the same problem.
- CATT wonders what the drawback is of option 2 ? It seems more future safe ?

- Samsung thinks in both cases we have a separate procedure in the spec. The difference is that in option 2, the Uu reconfiguration and the Un reconfiguration are included in the same req/response message.
- CATT thinks their proposal avoid any impact at all to normal UE's, whereas the QC proposal a container that UE's would always receive empty. In the CATT proposal, all Rel89 Uu reconfiguration IE's have to be copied in a second procedure. NSN thinks the QC proposal is cleaner
- => Will start with independent Un reconfiguration procedure.
- => If in near future serious benefits are identified from joint success/failure or inclusion in same message and processing at the same time, we can consider to have containers defined in the Uu-reconfiguration procedure that could transport the Un reconfiguration procedure (FFS).

Other:

R2-104843: Consideration on MME selection for Relay ZTE Disc
 R2-104565: RRC Connection Release on Un Interface LG Electronics Inc. Disc
 R2-104647: Considerations on Other Re-establishment Causes for Relay ZTE Disc
 All 3 Tdocs not treated.

7.2.1.3 Other

E.g. 8 or 11 RB's ?

Integrity Protection in DRB

- R2-104854: Un security for S1/X2-AP signalling NTT DOCOMO, INC. Disc
- Vdf assumes option 2-2 is probably ok, but Vdf understands that in option 2-2 there is no possibility to authenticate the hardware, and thus option 2-1 cannot be ruled out completely yet. But this is more a SA3 issue.
 - Ericsson wonders if the underlying assumption is NDS-IP to all transport over Un ? It is only needed for X1/S2. Since the volume of this traffic is quite small, the relative overhead over Un is quite small, and also the processing should be possible in software.
 - QC agrees the overhead is limited to signalling messages. However QC thinks mobility impact is quite important. Ericsson thinks we have a clear agreement for mobility not in Rel-10. QC thinks we see now that security take a long time to well design, so it would be nice if we do not have redo all the work in the future.
 - NSN has same view as Ericsson: it seems overkill to introduce such a function in AS only because RN's need it. NSN assumes mobile-RN's is far ahead so we should go for the simplest solution now. So NSN prefers option 2-1.
 - Huawei assumes that for mobile RN many aspects need to be considered, and thus Huawei prefers a simple solution as in 2-1. Huawei sees no significant cost increase of RN's for supporting NDS-IP.
 - QC clarifies that they assume the integrity protection configuration would be part of the Un reconfiguration message, not the Uu reconfiguration message.
 - ALU prefers option 2-1 in order to limit AS impact.
 - Samsung has no opinion, but what is the real complexity ? One PDCP PDU format ?
 - Vdf thinks in the end it is an SA3 decision.
 - ALU assumes that the reason for asking RAN2 is to get an opinion from the same companies as in SA3 from the AS point of view.
 - Panasonic agrees with QC/NTT DCM
 - A) Addition of integrity protection to DRB's should preferably be avoided [5]
 - B) Addition of integrity protection to DRB's is no large concern [7]
 - All major network vendors seem quite negative on supporting this in AS. NSN thinks it is not really a piece of cake.
 - => Will look at proposed response LS in R2-104905
- R2-104905: Response to SA3 LS on integrity protection function at the access stratum Qualcomm Incorporated Disc
 Take a look at the included proposed response
- Chairman wonders if we should reflect that main network vendors have expressed concern on enhancing AS for this ? QC would prefer to keep one RAN2 voice.
 - NSN thinks we have different expertise in different groups, so that is why it good to express some concerns. QC thinks the LS is already a bit negative

- Ericsson would prefer to say "most likely feasible" and to add "introduces a number of specification impacts that need further evaluation."
- => After offline discussion, updated LS proposal is provided in R2-104940

DRBs

R2-104702: DRBs number on Un considering S1/X2 and OAM Huawei Disc
-

R2-104609: Further discussion on the number of Un DRBs CATT Disc
- Ericsson wonders why e.g. a bearer with RLC-UM on Uu cannot be sent over RLC-AM over Un ? Ericsson is not sure there is a great loss ?

R2-104354: Standard impacts when supporting more than 8 Un DRBs LG Electronics Inc. Disc
R2-104398: Number of bearers on Un Interface Nokia Siemens Networks, Nokia Corporation Disc
R2-104785: Discussion on Number of RBs for Un Interface Fujitsu Disc
All 3 Tdocs not treated

Discussion

- NSN thinks we should go for 8 bearers: all network vendors have indicated that 8 bearers is enough and no operator has come with clear input.
- DT would prefer not to have to multiplex OAM and SCTP, and thus have 8 bearers for user bearers.
- DT thinks if we only have 5 or 6 bearers, then your whole network might be planned for 8, and then you only have 5-6 over Un.
- NSN repeats that QOS differentiation at times of congestion, and over Un we should have congestion only in rare cases. NSN would have preferred to have operator input showing that with 8 bearers it cannot be worked out.
- Ericsson thinks for OAM you probably need a separate bearer. Ericsson assumes SCTP can be multiplexed with user plane traffic. Then you have 7 bearers available. With 11, you would have 10 available. Ericsson assumes QOS differentiation difference between 7 and 10 is probably quite small.
- Huawei agrees with Ericsson. Huawei also thinks user plane traffic with similar QOS can be mapped to the same Un radio bearer.
- => Will stay with 8 radio bearers in Rel-10 over Un

DRB mapping

R2-104898: Configuration of Uu to Un bearer mapping Qualcomm Incorporated Disc
- DT wonders how we can specify the mapping in the spec ? QC explains that there would be a standardised mapping between QCluu->DSCP, and then the DeNB configures the mapping between DSCP->QClun. QC indicates the limitations is in 64 DSCP codepoints, so if an operator would have more than 64 QCI's over Uu, this could be a limitation

R2-104542: Mapping between Uu and Un Bearers Alcatel-lucent Disc
-

R2-104786: Uu to Un bearer mapping Ericsson, ST-Ericsson Disc
R2-104291: DRB mapping on Un Potevio Disc
Both Tdocs not treated

Different options:

A) preconfigured in RN by OAM; Preconfiguration is either based on:

A1: QCluu -> QClun (ignore TFT coming from DeNB)

A2: QCluu -> DSCP, + TFT coming from DeNB

B) QCluu->QClun configured by RRC

C) QCluu->DSCP specified in standard, combined with normal TFT coming from DeNB

Discussion

- DT would prefer option A2.
- Ericsson wonders what the benefit is of A2 compared to A1 ? At least one difference is that the TFT coming from DeNB has a role in A2, and no role in A1.
- LG wonders whether on Un there is a one to one mapping between QCI and Un bearer ? NSN assumes a UN bearer is a radio bearer with its own QCI.

- LG wonders if multiple Un bearer can have the same QCI ? NSN wonders why you would use different bearers ? If we could, then A1 might not specify a unique mapping. NSN assumes that even if we would have it, it does not matter to what Un bearer you map.
- NSN thinks A1 is easiest since anyway the mapping is fully network effort.
- QC clarifies that with A2, the role of the RN is doing the same as a normal eNB would do: first marking with DSCP and the filtering in the RN-UE part.
- NSN assumes we never specified a QCI->DSCP marking so far.
- DT thinks it would be nice to have the policy coming from the DeNB.
- Vdf supports option A. Then in more detail, Vdf would prefer A2. Orange also prefers A2.
- Huawei supports A, and thinks A2 is feasible.
- Ericsson supports A, and has a slight preference for A1.
- ALU thinks there is no real reason to go via DSCP in the RN. QC explains that the DSCP is just used to be able to use existing "tools" (NAS signalling for the TFT) to map to the Un bearer.
- NSN prefers A, and more specifically A1.
- RIM wonders in the A solution, in case of mobile RN is there any impact ? DT thinks we should not discuss this. DT anyway assumes same policy is used in entire network

Agreements:

- 1) Many-to-one mapping from Uu bearer QCI to Un DRB should be supported
- 2) We assume that OAM configures the mapping of the QCIuu to the Un DRB

FFS whether:

A1: QCIuu -> QCIun (ignore TFT coming from DeNB)

A2: QCIuu -> DSCP, + TFT coming from DeNB

Other

R2-104852: Deployment concerns on RN preconfiguration NTT DOCOMO, INC., Vodafone, KDDI, TeliaSonera, Orange, CMCC Disc
=> No longer relevant for Rel-10, addressed by RAN3 solution. But still something to consider for later releases.

R2-104545: Need of dedicated SI provisioning for Type 1a 1b NEC Disc
- NSN what happens when the dedicated procedure is used towards a Type1a/1b ? Will it have to ignore ? Or just treat ?
- NSN wonders if Type1a/1b would not even support these messages ? Fujitsu would support that Type1a/1b would not have to support this.
- So far we have not identified any reason for a type1a/1b to support the "Un reconfiguration" procedure ?
- NTT DCM supports the proposal.

Agreement:

- 1) Type 1a/1b RN do not have to support dedicated SI provisioning.

Probably the Type1a/1b RN do not have to support the Un reconfiguration procedure, but this can be further examined.

R2-104553: Considerations on deployment of both relay and MBMS CMCC, CATR, ZTE Disc
- RIM wonders whether this should not be discussed from interference point of view ? CMCC thinks this is a RN related topic.
- Fujitsu wonders if the disabling of MBMS is only for Type 1 ? CMCC confirms.
- Chairman wonders what the real problem is for MBMS with RN ? CMCC thinks several problems.
- NSN wonders if we could decide that we support it if it comes for free, but not if it does not come for free.
- CMCC thinks one basic problem is that from network point of view, the RN is just a cell under the DeNB. So the DeNB will obtain control (from MCE) and MBMS data from server, but we have no protocol to provide this from the DeNB to the RN. E.g. how do we sent the MCE control to the RN.
- NTT DCM now understands that the problem is common for all RN types ?

- ZTE thinks the consequence is that RN should not be deployed in an area where MBMS is deployed. ZTE agrees it is for all RN types.
- Orange does not support proposal 1. Orange wonders what is most complex: have the type1a/1b avoiding the interference, or supporting MBMS on the RN.
- Chairman wonders if we would inform Type1 about the MCCH contents of the DeNB, then RN could avoid the TTIs with DL MBMS on Uu ?
- Ericsson wonders if RN-Uu transmission avoidance on DeNB-Uu MBSFN transmission TTI's. This seems similar to a DeNB at the edge of an MBSFN area.
- RIM thinks if the RN is used for coverage holes, then the UE will loose the MBMS in that area. ZTE thinks since the operator is in control, the operator is in control. Also maybe neighbouring cells can cover the area because of the combining aspect in MBSFN transmissions.
- Samsung wonders if the concept of "reserved cells" is supported on the MCE<->eNB interface.
- DT thinks it is ok not to have the combination in Rel10, but in general DT assumes all normal eNB functionality is supported by an RN. Also Vdf is ok not to have this in Rel10.
- Orange thinks it is really a problem if RN's and MBMS cannot be depolyed in the same area.
- LG thinks we should not spent much time on this combination in Rel-10. Maybe unicast is a solution.
- NTT DCM is ok not to support the combination in Rel-10. Consequence might be that if an operator provides MBMS services later on, it might required RN upgrades.
- Avoiding DL transmission on RN-Uu seems possible if the RN is aware of the MCCH from the DeNB.
- CMCC indicates that ofcourse they are fine if we do more in Rel-10.

Agreements:

1) We will not support MBMS on RN in Release-10

Will study if we have to take any action for interference avoidance.

- R2-104380: Number of MAC PDUs for Relay Operation LG Electronics Inc. Texas Instruments Disc
- NEC wonders if this can be deployed without any impacts on L1? LG thinks this should be studied. We should study how we can set the appropriate QOS in L2.
 - RIM wonders what the problem is if we transmit the TB's in different TTI's ?
 - Chairman wonders if there would be RAN4 emission mask consequences. There might also be MPR issues of parallel PUSCH transmission ? LG agrees these things would have to be studied. Panasonic agrees with the MPR consequences. Panasonic thinks the impact to L1 should be checked because they have assumed the UE only has to decode one PDCCH.
 - QC wonders whether support would be mandatory for the RN node ? LG did not dare to ask for mandatory.
 - Ericsson does not understand why there would be a significant QOS benefit. E.g. even QOS can tolerate several HARQ retransmissions
- => Noted (no support)

- R2-104546: PWS and Relay Node NEC Disc
- LG thinks RN should receive PWS information from DenB rather than from MME.
 - QC wonders if the proxy function in the DeNB would have to provide it to the RN ? NEC confirms.
 - Ericsson supports the proposal. Huawei in principle supports the proposal.

Agreement:

- Only PWS related information received over S1 message is processed by the RN for broadcast over RN-Uu (similar to a normal eNB) i.e. SIB10, SIB 11, SIB12 transmitted by the DeNB have no relevance for RN.

- R2-104779: Outband Relay Operation Fujitsu Disc
- R2-104418: Number of DRBs and MAC Bottleneck on the Relay Backhaul Sharp Corporation Disc
- R2-104324: R-PDCCH monitoring during suspended Un Fujitsu Disc
- R2-104547: Relay Node energy saving NEC Disc

- R2-104564: Efficient RN Power Consumption LG Electronics Inc. Disc
 R2-104651: Considerations on PDCP status report of RN-UE ZTE Disc
 R2-104872: RN/eNB selection for coverage-overlapped UEs generating session requests from idle mode
 LG Electronics ?
 All 7 Tdocs withdrawn.

Too late/not available/withdrawn

- R2-104325 R-PDCCH monitoring during suspended Un Fujitsu Disc
 R2-104326 R-PDCCH monitoring during suspended Un Fujitsu Disc
 Both withdrawn

7.2.2 Stage-3

7.2.2.1 Running CR

Latest version of the running CR for 36.321 from rapporteur, as well as corrections of obvious errors from other companies.

- R2-104803: Specification impact from RNs Ericsson, ST-Ericsson Disc REL-10 LTE_Relay-Core
- Huawei wonders about the "subset of UE functionality" in section 2 ? What is this really ? Ericsson thinks we have agreed that the RN should support sufficient functionality to interoperate with the DeNB. Ericsson thinks for example measurement might not have to be supported if the RN-vendor and operator agreed that this is not necessary.
 - QC wonders about the case if there are RN's from multiple vendors in the network, what can the DeNB expect ? Ericsson thinks the approach is the same as for eNB. E.g. the spec specifies SPS, but the operator can decide whether the eNB's it buys have to support it.
 - QC agrees that for the RN-Uu functionality this is true, but for Un it directly impacts interoperability with the DeNB. So there we either have the same requirements as for UE's, or we signal more capabilities.
 - NSN assumes the RN supports all functionality as a UE on Uu. NSN agrees RN is part of the network, so if the operator and vendor agree it would perfectly be possible that the RN would not support all mandatory UE functionality.
 - From the specification point of view and for our work, the RN supports all mandatory UE functionality unless specified otherwise. However it is still possible that a RN vendor and operator agree less functionality is required but this is the responsibility of the RN vendor and operator ?
 - Ericsson wonders if an RN would not support all UE functionality, is the RN non-3GPP compliant ? NSN thinks if operator and RN vendor decide on less functionality, the operator is assumed to be happy, and "3GPP compliance" is no issue.
 - Question is what will be tested ? NSN assumes the RN is only tested as UE. So there would be no testing of the Un reconfiguration procedure. Vdf thinks we might want to test Un. DT thinks we also do not test X1 or S2.
 - Ericsson is not sure that a RN will really have to pass all UE test cases ? Maybe not all performance requirements are relevant, e.g. measurement range is different.
 - RF part would be as UE and should be fully tested ?
 - Ericsson thinks we should give guidance to RAN4 that not all UE functionality of RN needs to be tested. Ericsson assumes RF part would be tested and fully compliant.
 - NSN assumes L3 Un specific part does not need to be tested by RAN5.
 - RIM wonders about R-PDCCH aspects/performance. Should this not be tested ?
 - QC indicates in phase 1 the RN should fully work as a UE.
- => Will sent LS to RAN to bring up the issue of RN testing and request RAN to instruct the RAN WG to work on relevant parts.
 E.g. in RAN2 assumes:
- Should the UE part of RN should pass all UE RF tests ?
 - Should the UE part of RN should pass all mandatory L2/L3 UE tests ?
 - Probably no need for RAN5 to develop tests of Un specific L3 procedures (Type 1)?
- Question whether Un specific L1 functionality tests should be specified by RAN5 ?
 Can mention that RAN2 assumes RN-Uu<-> Un "interworking" in RN does not need to be specified in RAN2.
 Detailed wording can be discussed offline.
 => Will see outgoing LS in R2-105206

- R2-104781: Introduction of relays in RRC Ericsson, ST-Ericsson CR 36.331 (0467) - B REL-10
LTE_Relay-Core
- => NSN points out that in most cases, "RN" should be replaced with "RN with a subframe configuration".
 - => Samsung wonders where we indicate that normal SI acquisition does not apply for an "RN a subframe configuration" ? Should indicate this somewhere.
 - Should try not to mix UE and RN procedures ? Probably we should try to create a new chapter in the spec where all RN specifics are captured. E.g. instead of a bullet in 5.3.7.2, we indicate in the new chapter: after releasing the reportProximityConfig, the RN discards any previously RN-specific subframe configuration. Can leave this to the rapporteur for now whether we want to do this.
 - NSN wonders if every new bullet/line could be tagged e.g. with "[RN]: "
 - Fujitsu thinks for future proofing it would be nice if the descriptions are not mixed. Rapporteur does not see a big difference from future proofing point of view.
 - => EMAIL DISC Ericsson will be provided on Tuesday after meeting, and 2 week period to come to non-contentious running CR. Final CR in R2-105207
- R2-104805: Introduction of relays in MAC Ericsson, ST-Ericsson CR 36.321 (0433) - B REL-10
LTE_Relay-Core
- => R-PDCCH subframe definition should be discussed/studied (only DL subframes for this UE)
 - Fujitsu wonders about 5.1.1: Ericsson clarifies that "suspend any subframe configuration" already includes the case of no subframe configuration present
 - => Section 4.2.1, some simplified wording might be possible
 - Huawei wonders about section 5.10, whether it would not be more suitable to say "SPS not supported on Un". Ericsson clarifies that type1a and type1b can have SPS. Probably ok as it is.
 - => EMAIL DISC Ericsson will be provide CR on Tuesday after meeting, and 2 week period to come to non-contentious running CR. Final CR in R2-105210

7.2.2.2 Other

- R2-104784: RRC procedure for RN-specific configuration Ericsson, ST-Ericsson Disc
- Section 2:
- LG wonders if we should say "the RN shall" or "the RN should" ?
 - => Procedure can be included in running CR
- Section 3:
- CATT wonders why the MIB is not included ? Ericsson assumed that none of these parameters would change on the fly for an RN.
 - => RIM wonders about the "direction" ? Should be e.g. "DeNB to RN".
 - => With that change, the ASN.1 can be included in the running CR
- Section 4:
- RIM wonders why we have a 10 bit and 40 bitmap ? It should be obvious that 4 subframes per radioframe cannot be used ?
 - NSN assumes that even if the DeNB and RN are not subframe aligned, still we discuss the configuratio of the DeNB here, so there is no problem with the 6 bits.
 - => Section can be included in running CR, but with the RB-subframe IE referring to the MBSFN configuration from SIB2
- R2-104703: Consideration on the System Information update Huawei Disc
- Proposal 1:
- Ericsson agrees with SIB1, SIB2 but wonders about MIB. Huawei agrees that probably MIB is not needed, but it is not completely clear whether it can be changed on the fly. NSN sees no reason for MIB so far.
 - => Include SIB1,SIB2 for a start
- Proposal 2:
- QC agrees that maybe we do not have to sent the SIB with the CSG name, but there seems to be nothing preventing the RN to work via a HeNB, so why exclude.
 - DT thinks we should not exclude this now; there could be cases where you want to connect via a CSG cell.
 - => Noted

Proposal 3:

- NSN wonders if this is a kind of optimisation for signalling size ? Huawei thinks most of the information from SIB1/2 is not really needed.
- Ericsson thinks given that it is an optimisation, since the overhead should anyway be low, we should probably not spent time on this. ALU agrees with Ericsson

=> Noted

Proposal 4:

- NSN assumes this is no relevant anymore: if we include complete SIB1/2, then we have no delta signalling.

=> Noted

R2-104649: The stage-3 procedure description of DeNB SI updates ZTE Disc

=> Noted: covered by previous discussion.

Continuation up to next meeting

EMAIL DISC on Stage-2 CR (2 week deadline, finally corrected to 1 week to be able to submit to RAN #49) Final version in R2-104998

EMAIL DISC on baseline running RRC CR (3 week deadline) Final version in R2-105207

EMAIL DISC on baseline running MAC CR (3 week deadline) Final version in R2-105210

7.3 WI: MBMS enhancements (RP-100691)

(MBMS_LTE_enh-Core, leading WG: RAN2, started: June 10, target: Dec. 10, WID: RP-100691)

=> Including email outcome for [70b#16] - LTE: MBMS enhancements (Huawei)

Result of email disc [70b#16] - LTE: MBMS enhancements (Huawei)

R2-104868 Summary of Email Discussion [70b#16] LTE - MBMS enhancements Huawei (Rapporteur)
Report

General

- QC wonders whether "counting" and "reception status feedback" is the same or different ? Huawei assumes it is the same. LG thinks it is different: in UMTS we have counting, and also a joining phase (network knows which UE's are interested in service). QC clarifies that "reception status feedback" is whether the UE has received a certain data/PDU positively.
- QC assumes that when we talk about feedback now, we only mean counting. Orange agrees we only count. Samsung also agrees only counting.

Proposal 3:

- CMCC wonders what "not-yet-activated-service" mean ? Has the session started but it is not yet on the radio interface, or the MBMS service is not started yet.
- Huawei thinks details can be discussed later.

Proposal 4

- Nokia sees an inefficiency for services already provided, but not a big concern.
- Samsung/Ericsson assume the TMGI could be used as unique identification for any MBMS service, ongoing or not ongoing.
- CATR wonders if we can do counting before session start ?

Proposal 6:

- Samsung points out that this is only needed if we have to support parallel counting on different MCCH's. LG assumes also in some other cases (still FFS), e.g. when going to connected, the UE might want to indicate interest over multiple areas.

Proposal 7:

- ZTE thinks we could have bitmap solution.

Proposal 8:

- LG does not want to exclude yet to include the information in existing messages.

Agreements

- 1: Network has means to enable/disable UE status reporting per service.
- 2: The UE is able to report multiple MBMS services in one status report message.
- 3: Counting will be supported for both services already provided in an MBSFN area, as well as for services not yet provided in an MBSFN area
- 4: Extend directly the MCCH message, for both ongoing and non-ongoing services, to include a new counting request message, which contains a list of TMGI's requiring UE

- feedback.
- 5: It is unnecessary to retransmit the status report when the UE moves within the same MBSFN area.
 - 6: Include an optional "notificationIndicator" (3 bits) in the status report to identify the MBSFN Area if overlapping is configured.
 - 7: Include an "index of service Id" in the status report to identify the MBMS service
- FFS if this is with bitmap or really list of service indexes
 - 8: We introduce a new RRC message to send status report from the UE to the eNB.

Activation case

- R2-104763: Discussion on Activation scenario for reception status report Orange Disc
- W.r.t. proposal 3, Ericsson wonders if we need some kind of UE capability ? Orange thinks we should consider a Rel-10 UE capability.
 - Samsung wonders if there is a kind of joining procedure in LTE ? Orange assumes joining is not needed: the network just gets feedback from the UE's interested in a certain service. IPW indicates that eMBMS does not support
 - Ericsson wonders in order for the network to initiate the counting, does it have to know that the UE is receiving the unicast bearer ? Orange assumes network does not need to know. The operator will configure the service that should be counted for
 - LG wonders how the UE can link the unicast service and the service potentially provided on MCH ? Orange thinks this is an application level issue. LG wonders if the network knows the UE is already receiving the service via unicast or not ?
 - Orange assume OAM would configure the MCE to start "counting for activation" in a certain MBSFN area. Maybe also impact on BMSC ?
 - IPW wonders whether we need to distinguish session and service ? Can we count per service or per session, i.e. counting for a session which should be provided in the near future ?
 - QC thinks nobody has looked at the architecture aspects yet, and it should be considered.
 - NEC indicates 23.246 is available in SA2.
 - Huawei also thinks architecture aspects are missing, and Huawei thinks they can be discussed in RAN3.
 - Huawei assumes we only count per service. Nokia thinks this is justified because we only count for services somehow ongoing (one way or the other). DT agrees.
 - ALU wonders what proposal 3 really says ? We only need to count before the service really starts by unicast ? Orange assumes so. ALU wonders if we would not get a lot of UE's starting to receive the service with unicast if the session starts ? Then the broadcast will always be started too late ? Orange only wants to control service provisioning in a macro way. QC thinks that if this would really be true, then services have to be always delivered by unicast first but it might require a lot of unicast bearers.
 - QC wonders if the following scenario is not valid: BMSC wants to provide a service, and will start broadcast as soon as there is one user interested. QC would assume that different parts of the country at different times (due to non-presence of interest UE's).
 - Orange assumes that the service is always already provided by unicast.
 - Samsung wonders why the counting would have to depend on the service already being received by unicast.
 - Orange assumes it is enough to only count the UE's already receiving the UE in unicast, and then we can decide. LG wonders if this is true, why can the network not internally count these UE's ? ALU assumes that the awareness might only be at the streaming server, and not lower in the network. LG wonders why OAM could not provide this information to the RAN ?
 - Orange thinks for activation, we do not have to count IDLE mode UE's. For deactivation also IDLE mode UE's might be interesting to count.
 - Ericsson thinks it should be possible to count before the really starts. In that case the service would not yet be provided by unicast. E.g. before the football match even starts.

- R2-104543: Acquiring feedback for interested service before a service start Alcatel-lucent, Alcatel-Lucent Shanghai Bell Disc
-

Can we assume the eNB can be made aware of MBMS services not provided as MBSFN yet?

Discussion

- Samsung points out that in UMTS we count per session, since we could have session repetition and then only UE's not having received the session yet should respond.
- IPW thinks the unicast provisioning is still an MBMS user service, but not over an (AS aware) MBMS bearer service. LG still does not understand why BMSC (aware of MBMS user service) does not provide input e.g. to MCE to decide on whether the service should be provided via MBMS bearer service ? Chairman points out this would not work if the service is not first provided by unicast. DT thinks a network internal solution could be enough for this case.
- Ericsson wonders all unicast bearer have to be included in the service pool that is provided by broadcast counting ?

Agreements:

- 1) We count UE interest per service, not per session
- 2) Activation of the service will MBSFN area wide
- 3) We only have to consider MBMS service activation on existing MBSFN areas
- 4) RAN is not aware of MBMS service provisioning through unicast bearers

Assumptions:

Activation:

- 4) By some means, the eNB will receive an indication (from MCE?) that should count for potential activation for a certain service, potentially even before any session of the service has started.

- 5) Based counting in eNB (multiple eNB's), the eNB will be told whether to provide the service (it sessions) in an MBSFN area or not

- => LS to RAN3, SA2: on MBMS activation
SA2: ask whether for activation, given the understanding that only counting UE's which have the service provided by unicast might be enough, is a network internal solution possible in which e.g. the BMSC would inform the MCE where to activate the service ?
- Ericsson assumes all UE's receiving via unicast would indicate interest ? Orange would like to count the UE's receiving the service in unicast, so yes. Orange is not interested in future interest, because then the user would have to indicate future interest and that is not the complexity Orange is considering. So only if the UE is already receiving.
 - Ericsson points out that any service going to be provided by broadcast would first have to be provided by unicast. DT assume at least the services for which you want to count. Orange agrees.
 - Orange would prefer a common solution for activation and deactivation, so counting in RAN.
 - DT/NEC think we should investigate the network internal solution.
- RAN3: Are both assumption above correct ?
- => Will see LS in R2-104994
- => Will start to maintain a running CR for 36.300. Will be endorsed by email discussion [71#21] in R2-104993 to capture all agreements from this and previous meeting.
- => For now we continue under the assumption we have a RAN based activation counting. If SA2 tells this is not needed, we can remove.

Support IDLE

R2-104776: On the need of counting MBMS UEs in idle mode Ericsson, ST-Ericsson Disc
-

R2-104836: MBMS enhancement considerations Pantech Disc
not treated

Support counting from IDLE mode UEs? For activation and deactivation case?

Discussion

- LG wonders for activation, if UE's would always have unicast, counting IDLE UE's would not be required for activation ? Ericsson thinks this depends also on the confusion from the discussion yesterday: Ericsson assumes that the UE might not always have a unicast bearer
- NSN wonders about the impact to the RACH load ? Ericsson thinks we have seen from the MTC simulations that this is not a problem. In addition, we would have a probability factor to control it.
- Nokia wonders if the MME load would not potentially be a problem ? Ericsson does not propose any change to the existing connection establishment procedure.
- ALU wonders if S1 is established as part of this connection ? Ericsson assumes a normal connection.
- QC thinks from previous input it is clear that it is not usefull to have individual cells drop in/out of an MBSFN area, but the density of UE's interested that motivates switching on the whole MBSFN area depends on the MBSFN area size. But it is quite small.
- ZTE supports the proposal since the whole procedure becomes more accurate.LG wonders how the network can accurate control the RACH load if it is not the eNB that decides on the counting itself. Ericsson assumes you can start with a low PF. LG wonders if the PF is in MCCH and the value is set e.g. by the MCE, how do we avoid certain cells to be overloaded ? QC thinks anyway the same decision was taken for UMTS.
- DT thinks in the future more and more UE's will be in connected. So how important is the IDLE mode counting ?
- ALU thinks we could save the S1 in this connection. With a cause e.g. in the connection setup complete, the RAN could immediately release the connection. Otherwise we would have to inform the MME that this connection is only for counting.
- Samsung wonders if the intention is tracking, or just a poll at which we receive as output how many UE's want to receive. NSN thinks in UMTS we had security as a requirement.
- Huawei thinks we can all agree that IDLE mode UE counting can give benefits, but given we have 2 meetings, we should only do connected. Vdf thinks the WI clearly talks about connected only.

Agreement:

- Only counting of connected mode UE's within the scope of this WI

Initiation (network or UE)

R2-104528: MBMS Reception status reporting in R10 CATT Disc

- Ericsson wonders if 4 new events would be introduced (starting, stopping, increasing, reducing) ? CATT assumes any change in service interest will be signalled.
- Ericsson wonders if the network could control these events, or would e.g. the specification mandate that any change of interest needs to be signalled ? CATT even sees no need for network enable/disable.
- Huawei points out that the mobility enhancement is clearly listed as Rel11. Huawei considers case3 an implementation issue. The scope of this WI is clearly to have feedback, and it is up to the network how to use it.

R2-104653: The baseline of MBMS status reporting ZTE,CMCC Disc
withdrawn

R2-104558: MBMS UE initiated feedback LG Electronics Inc. Disc
not treated

Two solutions:

- 1) *Network polling*
 - *Network asks feedback and UE's respond*
- 2) *UE initiated indication on change*

Discussion

- LG thinks in the UE initiated case we only need one message which lists the interested services, and it is sent whenever there is a change in interested. LG thinks the sending could be controlled by the network as already agreed.
- Huawei sees some benefits but it depends on operator input whether this type of dynamic information is really needed.

- LG wonders in the network request how long/often the UE response to one request from the network. Ericsson thinks we could use e.g. a sequence number, and the UE only response to counting with 1 SN only once; Ericsson assumes anyway we need network control. Ericsson explains that in the counting request there is an SN; the UE response and stores the SN. If the UE sees counting with the same SN on the MCCH, it will not respond.
- Ericsson thinks network polling is easiest. ALU agrees. Orange thinks the procedure is only for specific cases, so Orange clearly thinks the network should control when to count.
- Huawei thinks we already agreed network control.
- Huawei does not see the need for SN: Huawei thinks that as long as the service id for which the counting is requested does not change, the UE will not respond again.
- LG would prefer to also indicate the service interest in the connection request. NEC would prefer not to have this since it would mean the UE has to memorise the request. LG thinks we do the same in UMTS. QC wonders what is the special thing about UE's becoming connected ? No support for enhancing connection request. QC does see some potential benefits e.g. in the scope of counting IDLE mode UE's in the future.
- QC wonders if we could just copy section the corresponding sections from UMTS ?
- DT thinks we should not have anything UE autonomous indication.

Agreements:

- 1 Will only introduce a mechanism in which the network requests feedback, and then UE's respond. No automatic indications from UE e.g. on interest change
- 2 We should be able to only get one response from a UE related to one request
FFS whether this e.g. requires an SN in the request

Request details

R2-104777: MBMS counting request Ericsson, ST-Ericsson Disc

=> Noted (already covered by agreements from email discussion)

R2-104778: Probability factor adaptation for MBMS counting Ericsson, ST-Ericsson Disc

Proposal 3 no longer considered.

General:

- Huawei thinks we should avoid linking everything to UMTS: in RAN also many companies expressed that the UMTS solution was too complex.

Proposal 1:

- ZTE wonders if we only have connected mode UE's, do we still need the PF ? LG agrees: main intention for PF is probably IDLE mode UE's. In LTE connected mode UE's can use D-SR so there is e.g. little RACH impact. CATT agrees with ZTE and LG. Huawei agrees.
- DT wonders if it would work the same as in UMTS with random draw ? Ericsson confirms. DT agrees this is not so obvious necessary for connected mode.
- QC thinks if we agreed it is enough to only count connected mode because there is so many connected mode UE's, then we should be able to handle a large number of UE's.
- Samsung wonders if we would have updating of the probability factor within the modification period. Ericsson thinks we might not need to mandate UE to read MCCH multiple times in modification period.

=> FFS if we need enhancements to the request for load control

Proposal 2:

- LG understand that we do not need to count per session, only per service. What is the intention with the SN ? To count per session ? Ericsson thinks the intention from UE point of view is to count per service, but if you execute the request at every session, effectively the network could count per session.
- CATR thinks 2 phases is enough: one for connected and one for IDLE. Chairman points out we have agreed not to count IDLE mode UE's.
- QC wonders why we need this mechanism now, if we did not have it in UMTS ? ZTE thinks there is a difference: the UMTS mechanism has to work very quick for ptp->ptm change. However here we have a much slower counting. QC thinks the counting itself would not need to be different, just the response time for starting the session on broadcast.
- Huawei thinks the network can avoid parallel counting procedures.
- Huawei thinks the UE should only respond when it sees a counting request for a new service.
- ZTE support this proposal.

=> FFS if we need enhancement requests to ensure that the UE only responds one to one request

R2-104754: Two-Stages Method to Count RRC_IDLE UE CATRDisc
R2-104654: A mechanism on MBMS status reporting procedure ZTE Disc
R2-104697: Concepts of 'ongoing service' and counting Qualcomm Incorporated Disc
All 3 Tdocs not treated.

New IE in MCCH

Unique id per request: only response once to request

Separate PB for CONN and IDLE

Feedback details:

R2-104559: Contents of MBMS reception status LG Electronics Inc. Disc
R2-104657: Discussion on MBMS status reporting ZTE Disc
Both Tdocs not treated.

Other:

R2-104755: Request Clarification on MBMS Service Activation CATRDisc
R2-104531: Layer 1 signalling based counting method for E-MBMS IPWireless Inc Disc
Both Tdocs not treated.

Too late/not available/withdrawn

R2-104556 MBMS UE initiated feedback LG Electronics Inc. Disc
R2-104557 MBMS UE initiated feedback LG Electronics Inc. Disc
=> Both Tdocs are withdrawn

Continuation up to next meeting

R2-104993: Running MBMS CR for 36.300
EMAIL DISC [71#21]: available on Tuesday after meeting; endorsement by the end of week 2 after the meeting

EMAIL DISC [71#58] HUAWEI to progress the stage-3 work on aspects like:

- request details (load control ? limit response for one request ?)
- feedback details
- stage-3 CR

7.4 WI: TEI10

Note: Better use "TEI10, LTE-L23" as WI code instead of "TEI10" alone for REL-10 enhancement CRs of LTE-L23. Otherwise UTRA and LTE CRs are difficult to distinguish.

Contributions concerning user plane enhancements for supporting high data rates can be supported under this agenda item.

High priority MT CSFB

R2-104759: Supporting MPS CSFB terminating calls Alcatel-Lucent Disc REL-10TEI10, LTE-L23
-

R2-104734: Priority handling of MT eMPS in case of CSFB redirection NTT DOCOMO, INC. ?
R2-104634: Priority indication for CSFB with re-direction ZTE Disc
R2-104637: CR for priority indication for CSFB with re-direction ZTE CR 36.331 (0463) - B
REL-10 TEI10, LTE-L23

Discussion

- QC wonders about 1st limitation in 2.2.1: will the LTE system always have this information, or maybe sometimes the LTE system will not have this information and then the solution is a bit degraded ? ALU indicates there is a rough indication now in the eNB. So if it is not very accurate, the mechanism will be degraded. NTT DCM points out that enhancements to this mechanisms are being discussed. (NTT DCM is proposing to inform LTE about the barring status to eNB).
- NSN wonders what then ? NTT DCM thinks then the eNB can selectively discard pagings.

- Ericsson agrees with NTT DCM. Also RAN3 has agreed on paging cause included in S1. Ericsson points out that RAN3 has not concluded on whether the NTT DCM proposal on ACB information is feasible and how often it can be exchanged.
 - ALU thinks the ACB status is not a complete view of the load; e.g. the policy of the network might just be to move UE's to e.g. GERAN.
 - QC points out that legacy UMTS networks would not be helped by enhancements specified in Rel-10.
 - NSN thinks there is always a trade-off between network interface load and accuracy of the load information in LTE.
 - NSN wonders if paging discarding is the best solution. The MME will just repeat the paging ?
 - NTT DCM thinks we have enough solutions available. It would be nice to have additional load information transport in the network. PPAC is quite essential in UMTS and LTE to protect its own network.
 - NTT DCM also thinks the UTRAN could use the ARP received at bearer setup to e.g. redirect the UE to GERAN.
 - ALU agrees it can be made without the cause value in paging, which would require UMTS to act before bearer setup. So ALU thinks it is a question of whether we want to enhance the initial phase. On the otherhand it is a simple solution.
 - Ericsson thinks the main benefit of using the network solution is not impact to the legacy UE. But Ericsson can also consider a simple cause enhancement to improve the Rel-10 situation.
 - Samsung would prefer to stay with a network based solution. Huawei also thinks network solution is sufficient: if operators really want this solution, they can upgrade their network, but they cannot update their mobiles.
 - NTT DCM points out that CSFB is probably also intended mainly for Rel89 UE's. DT agrees with this view. NEC agrees with NTT DCM.
 - Vdf would like to study this a bit further.
 - ZTE understands that in the network solution, there is no difference in UMTS between the high priority CSFB UE, and the low priority call initiating UE in UMTS ? NTT DCM points out that PPAC in UMTS is applied also for CSFB. So it is possible to bypass CSFB calls, and stop originating calls. ZTE thinks there is no difference between high priority terminating CSFB calls, and terminating calls for UEs camping in UMTS. NTT DCM points out that also in UMTS side you can selectively discard paging.
 - Vdf wonders what happens if an operator does not want to support PPAC ?
 - QC thinks the network solution is valuable. But it would be good to study if there are still cases to which it does not apply. E.g. operator with only legacy UMTS nodes, operator not deploying PPAC,...
 - NTT DCM thinks we should respond from this meeting: SA2 is supposed to finish Rel-10 next week.
 - ALU points out that UMTS already has paging causes.
 - ALU points out MPS is a Rel-10 feature relevant for Rel-10 terminals. Ericsson agrees.
 - Ericsson assumes SA2 also has to wait for a response from GERAN. Ericsson assumes we can wait one more meeting.
 - NTT DCM thinks we already have a solution, why introduce another one. ALU points out that GERAN is in scope and does not have PPAC.
 - ALU points out that MPS is mainly USA based. NSN assumes if we standardise this, also the rest of the world will start to implement this. ALU sees some value in using the cause values. NSN is hesitant. NSN would like more time to consider. NSN thinks we are comparing bad solution versus worse solution.
 - Ericsson understand that RAN3 is discussing MT-MTC. Then the paging cause might also be needed. NTT DCM we should not mix up MTC.
- => Allow one more meeting to respond. It would be good to hear from operators whether the network based solution is sufficient.

2Tx/Rx eCSFB to CDMA

R2-104619: Enhanced 1xCS Fallback support for dual Rx/Tx devices Motorola, Hitachi, KDDI, NEC, QUALCOMM Incorporated Disc

- ZTE understands the main feature here is to control the turn-on of the 1x radio. When in both cases is the radio turned on, and what is the state of the radio before this moment ?
- Motorola explains the 1x radio would be turned on at the same points in time where it is returned in Rel-9. Motorola assumes before this moment in time it is completely turned off.

- NSN wonders how often you turn on and off ?
- NSN wonders if we would need a capability ?
- Motorola assumes it is up to UE implementation when to turn off the radio.
- Motorola explains that if it gets the CSFB initiation from UE and the UE is eCSFB capable, it will start the Rel-9 procedure. Then at the final point based on the 2RxTx capability, the eNB release LTE or not when sending the UE to 1xRTT.
- Motorola clarifies we have indication in SIB8 that the network supports CSFB to 1x. Now an additional indication is provided so that the 2Rx/Tx UE knows it can switch off the 1x radio. In Rel-9 we have not included an indicator that the network supports enhanced CSFB, because the UE behaviour does not change if the network supports eCSFB or only Rel-8 CSFB.
- Samsung assumes when a Rel9 UE receives the new messages ? Motorola thinks you should not use this to Rel-9 UE's. Samsung thinks we have the 2Rx UE in Rel-9. If this UE triggers the CSFB it might not expect any 1x messages anymore. Motorola points out that such a UE would not indicate support for eCSFB (so S102 support).

Figure 1:

- NSN wonders about figure 1, is this a new 1x message to turn on the 1 radio ? Motorola indicates it is the same message as for Rel-9 eCSFB, the only difference is the RRC message use for the delivery and the fact that there is no release in LTE as a result.

Figure 2:

- S102 is supported, but no preparation was performed (e.g. no time to prepare or CDMA measurements bad). So redirection to 1x. Chairman thinks it is strange to call this a handover.

General

- Ericsson wonders if the actual power saving is significant. Ericsson thinks there is also other solutions. Motorola explains that in offline there was discussions on achieving gains without specification impact. E.g. if the UE only disables 1xRTT only when it is IDLE on LTE, then there is no suspension problem because in connected you would listen to paging on 1x and repond there. Motorola thinks this means more toggling of the 1x radio, so everytime a registration to 1x when the UE goes to IDLE, and registration over LTE when you go to connected in LTE.
- QC thinks the Ericsson alternative is complex from UE point of view.
- Motorola explains that it is the UE decision when to turn of the 1x radio, but if he does he should CDMA-register over LTE so that paging is received in LTE (over S102).
- Motorola explains that with eCSFB the UE just jumps to 1x and immediately jumps back after the call. So there is no need for registration over LTE.

After offline discussion:

- Conclusion from offline is that people seem ok to sent LS to SA2 to indicate that something like: "RAN2 has looked at the solutions proposed in R2-104619. Although details would still need to be discussed, RAN2 has not identified any principle technical problem with these solutions. RAN2 has not studied alternative solutions yet that might achieve the same goal potentially with less standard impact." Detailed wording can be discussed offline.

=> Will see outgoing LS to SA2 in R-104995

- R2-104620: CR to 36.300 adding e1xCSFB support for dual Rx/Tx UE Motorola, Hitachi, KDDI, NEC, QUALCOMM Incorporated CR 36.300 (0249) - B REL-10 TEI10, LTE-L23
- R2-104621: CR to 36.331 adding e1xCSFB support for dual Rx/Tx UE Motorola, Hitachi, KDDI, NEC, QUALCOMM Incorporated CR 36.331 (0461) - B REL-10 TEI10, LTE-L23
- Both CRs not treated

ACB for CSFB to UMTS

- R2-104301: AC-Barring for Mobile Originating CSFB call NTT DOCOMO, INC. Disc
- R2-104302: AC-Barring for Mobile Originating CSFB call NTT DOCOMO, INC. CR 36.331
- R2-104632: Further clarification on accesssc control of CSFB ZTE Disc
- R2-104633: CR for Further clarification on accesssc control of CSFB ZTE CR 36.331 (0462) - B REL-10 TEI10, LTE-L23
- All 4 Tdocs not treated

MBR <> GBR

- R2-104573: UE Handling of MBR Greater than GBR Qualcomm Incorporated, Orange Disc REL-10 TEI10, LTE-L23

- NSN wonders if the grant will always be filled even if the MBR is exceeded (i.e. no padding if data is available) ? QC thinks we could look at this case separately.
- NSN wonders if there is any impact to BSR reporting ? No impact.
- Ericsson indicates that SA2 already agreed no additional functionality is identified for the UE for MBR > GBR. So they have concluded that only the eNB would be impacted. QC thinks the expertise in RAN2 should look at this. Panasonic agrees with data: the eNB could only data that is successfully transmitted over the radio which does not seem so beneficial. Ericsson understanding is that SA2 targetted this at variable bitrate applications that are influenced by ECN. So the eNB can ensure that individual flows do not exceed MBR consistently.

R2-104762: Setting of Maximum Bit Rate (MBR) to be greater than the Guaranteed Bit Rate (GBR) over E-UTRA: MBR enforcement Orange, Deutsche Telekom, Telecom Italia, Qualcomm CR ? -
- ? REL-10 TEI10, LTE-L23
not treated

Discussion

- DT supports the intention of the CR.
 - Huawei indicates when we discussed the APN-MBR, then we assumed NAS would ensure this (with multiple APN's to the UE). Huawei thinks the same approach should be followed here.
 - TIM thinks it would be good to enhance the LCP for clearness and have consistency, the feature should be mandatory.
 - LG thinks problems might occur when NAS is not aware of the MBR and in AS the grant is much larger than the sum of the MPR's. Then there might be too much high priority data. LG wonders if this is a frequent case ?
 - Orange assumes it depends on the application on the GBR bearer.
 - Chairman thinks we are back to the discussion we also had on AS flow control: can the eNB with ECN sufficiently control the rate of flows.
 - ALU supports the proposal and thinks it should be supported by UE.
 - QC thinks HTTP+ECN is just one example and it should work for all applications.
 - Ericsson assumes for VOIP with multiple rates of UDP, ECN is used (no dropping which might lead to quality problems). ECN could be used for HTTP/TCP if it is supported end-to-end, but otherwise for these applications, dropping (< 1%) can be used. Ericsson thinks eNB can decide when to drop/mark.
 - ALU thinks we are talking about rate > MBR. So should this MBR be honoured by the UE ? Ericsson understands that the MBR is not negotiated/committed by the UE, but to the eNB.
 - ALU indicates MBR is exchanged on NAS level (UE indicates to network). Orange thinks often the request from the application is not taken into account, but the MBR is configured by the operator a P-GW.
- => Will send LS to SA2 to ask whether ECN/dropping is sufficient, or whether SA2 assumes MBR enforcement at UE AS is required in R2-104997

Corrections

- R2-104851: Msg3 transmission for HO Complete message Huawei CR 36.300 (0251) - F REL-10 TEI10, LTE-L23
- R2-104925: Addition of UE-EUTRA-Capability descriptions Research In Motion UK Limited CR 36.331 (0471) - F REL-10 TEI10, LTE-L23
- R2-104926: Redundancy version for system information reception Research In Motion UK Limited CR 36.321 (0435) - F REL-10 TEI10, LTE-L23
All 3 CRs not treated

Other

- R2-104290: Proposal of improving end users' satisfaction in LTE Rel-10 KDDI Corporation, Kyocera Disc REL-10 TEI10, LTE-L23 - REL-10 TEI10, LTE-L23
- DT wonders what the aim of the document is ? Specify the scheduler or have additional input from the UE to the scheduler ? KDDI wants to provide some information from lower layers to the upper layers.
 - DT is wondering what information from the UE could be required to improve eNB scheduling ? Ericsson assumes the BSR we have today is sufficient for user satisfaction.

KDDI thinks this is not sufficient. KDDI is thinking about arrival time of the PDCP PDU.
KDDI is open for other solutions.

- CATT thinks the QOS/QCI is sufficient for the scheduler. No other information is needed.
 - Samsung thinks it is increasing user satisfaction and is open for discussion, but does not see any concrete information that would bring benefits.
 - Vdf understands this in the context of user satisfaction logging ?
 - LG thinks user satisfaction is expressed in QCI parameters. LG does not understand why AS would have to do something further.
 - TIM thinks it would be interesting to trends in the current scheduler implementation strategies, maybe to even capture this in the standard, and then try to agree on information to improve the information.
 - NSN thinks there is no real problem. Also most traffic is DL which would not benefit. Also there is questions on UL overhead
- => Noted; unclear what user satisfaction cannot be met with current RAB attributes (QCI) and current BSR reporting.

- R2-104783: UE power saving and fast dormancy in LTE network Nokia Siemens Networks, Nokia Corporation Disc REL-10 TEI10, LTE-L23
- DT thinks it would be good to discuss this. We should avoid the massive signalling load we have in UMTS.
 - DT thinks UE's should never release the connection spontaneous. DT thinks the problem can be addressed if UE's and networks support long DRX.
 - NTT DCM agrees this is an important aspect. NTT DCM wonders what enhancements NSN is considering. NSN is thinking about something like a signalling connection release request.
 - RIM submitted a late related paper in R2-104934 indicating that it would be good to consider this in detail.
 - Huawei supports the intention. Huawei understands currently the UE shall never release the connection itself unless an abnormal occurrence of error in higher layers. Does NSN assume that UE's are allowed to do this ? NSN agrees it is not allowed, but if the UE does it there is not much the network can do.
 - DT assumes this is not allowed; DT is worried that UE companies would consider doing this but DT would really like to warn companies not to do this. DT explains that in the beginning of UMTS, some UE when sent to PCH state went to IDLE. Then operators had to disable the PCH state which delay with years the introduction of PCH state.
 - RIM agrees with DT.
 - Ericsson wonders how much one application knows if multiple applications are running ? Also with a signalling connection release request, would UE be allowed to go to IDLE immediately ? NSN thinks the network should always still in control.
 - TIM does not want autonomous release in Rel89 and thinks this is unacceptable. TIM is open for battery improvement proposals, but we should first understand the benefits. TIM thinks with only some UE's in the market we might not have a good view yet. TIM thinks we should always keep control the network, and the UE behaviour should be testable.
 - RIM agrees a smart phone with multiple applications need to behaviour smartly.
 - NTT DCM agrees with previous speakers on concerns/possible benefit. This is one of the reasons that the long DRX FGI is proposed to be mandatory in the FGI table.
- => Noted (some support)

R2-104934: UE Battery Efficiency in LTE RIM

R2-104698: Broadcast of positioning assistance data Qualcomm Incorporated, NTT DOCOMO INC.
Disc REL-10 TEI10, LTE-L23
revised in R2-104952

R2-104952 Broadcast of positioning assistance data Qualcomm Incorporated, NTT DOCOMO INC.
Disc

R2-104757: Max number of reported cells for SON ANR for UMTS and CDMA Alcatel-Lucent Disc REL-10 TEI10, LTE-L23

R2-104758: Reporting more than one cell for SON ANR towards UMS/CDMA Alcatel-Lucent CR 36.331 (0466) - C REL-10 TEI10, LTE-L23

R2-104307: Padding BSR and Empty Transmission Buffers Nokia Siemens Networks Disc REL-10 TEI10, LTE-L23

R2-104856: Combined Quantity Report for IRAT measurement of UTRAN Huawei Disc

- R2-104858: Combined Quantity Report for IRAT measurement of UTRAN Huawei CR 36.331 (0468) - C REL-10 TEI10, LTE-L23
- R2-104924: Clarification to option to define LTE-A UE categories Nokia Corporation Disc REL-10 TEI10, LTE-L23
- All 8 Tdocs not treated

Too late/not available/withdrawn

- R2-104403 UE power saving and fast dormancy in LTE network Nokia Siemens Networks, Nokia Corporation Disc REL-10 TEI10, LTE-L23
- => Withdrawn

7.5 WI: Other LTE Rel-10 WIs

(ECIC_LTE-Core, leading WG: RAN1, started: March 10, target: Dec. 10, WID: RP-100383)

- R2-104886: Mobility issues under pico cell deployment SamsungDisc REL-10 ECIC_LTE-Core revised in R2-105209
- R2-105209 Mobility issues under pico cell deployment SamsungDisc not treated

7.6 SI: In-device coexistence interference avoidance (RP-100671)

(FS_SPIA_IDC, leading WG: RAN2, started: June 10, target: Dec. 10, WID: RP-100671)

- R2-104555 TR 36.816, v0.1.0 Rapporteur (CMCC) TR36.816
- => agreed

Introduction

- R2-104447: Usage Scenario for In-Device Coexistence Avoidance MediaTek Disc Proposal 1
- Samsung wonders what "attach rate" is going to be expected in the future ? Mediatek assumes more BT earphones will be used
- Proposal 2:
- Samsung wonders whether active scan or passive scan is considered for WIFI ? Mediatek has no specific assumption.
 - Ericsson wonders if in proposal 2, can the UE not select a WIFI frequency far away from LTE ? If the only solution is separation, then maybe this is more RAN4. Mediatek thinks this should be studied.
- Proposal 3:
- Huawei wonders what offload is ? Does the UE know the load in the LTE system ? Mediatek agrees that today there is no consistent behaviour between different UE's and solutions are mainly proprietary. But the scenario is quite common.
 - Ericsson agrees with Huawei that today this is not really used, so probably no need to consider this. Mediatek indicates this is already observed on the market today. Panasonic agrees with Mediatek. Panasonic also point out that there is an SA WI on this. Nokia wonders if a solution is to not use offloading if there is a coexistence problem ? Samsung agrees with Mediat. Samsung points out that this is studied in 3GPP (TR 23.861)
- General:
- CMCC thinks all usage scenarios listed in this document are valid and relevant, so proposes to include them in the TR.
- => All 4 usage scenarios will be included in the TR
- R2-104329: Understanding the nature of issues related with in-device coexistence SamsungDisc General
- CMCC thinks the paper gives a nice overview on the scenarios.
- Bluetooth
- ZTE wonders if BT will adjust it frame timing, or only whether to use a certain slot or not ? Samsung clarifies both are possible. ZTE thinks frame periodicity (3.75) is fixed. Samsung agrees some slots will be colliding with LTE but they could be punctured.

- CMCC understands a passive avoidance mechanisms are decided. CMCC wonders if with these mechanisms, e.g. the headset scenario is sufficiently covered ? Samsung proposes to sent an LS to BT SIG.
- CATT wonders with proposal 1, is the assumption that BT can work out all problems ? Samsung hopes this is possible.
- Motorola wonders whether a LS is the best approach: what if they have a solution we do not like / they ask us for a solution we do not like ? Motorola assumes it would be nice if we would have a single solution for all cases.
- QC wonders whether these BT solutions will work for legacy BT devices ? Samsung is not sure: e.g. the UE has to become BT-Master. If a legacy device would refuse the switch, it might not work.
- Huawei would prefer to have a common solution for BT and WiFi, even if BT already has some solutions.
- Mediatek wonders if the passive interference mechanism will still work if LTE is the transmitter ? Samsung indicates that BT is focussing on band40, and BT kept band7 for future.
- Intel thinks BT will only work on protecting BT, not on protecting LTE. Samsung agrees it is not sure they will not impact LTE.
- ZTE would prefer to have some more time to investigate in order to quantify if BT's passive schemes are sufficient for protecting LTE.
- Motorola thinks it is fine to sent an LS to ask for the status of their activities.
- Mediatek thinks we should continue studying even if we sent LS.
- CMCC is generally fine with sending LS. However we do not have to wait for their answer.
- => Will sent LS to BT SIG to know the status of their interference avoidance solutions in R2-105213
- => Text can be used by rapporteur as one input to come to first introductory material in TR in email discussion (no quantification/judgement of problem, just objective description of scenarios) EMAIL DISC [71#32]

R2-104640: Modelling of interference avoidance for in-device coexistence ZTE Disc

Proposal 1:

- CMCC would be ok from operator point to focus on type 1. But from total system point of view/user point of view, also type 2 is important. So both should be considered.
- LTEband7 aspect should be moved "Type2"
- => Listed 4 scenarios are the primary focus of the study (including type2)

Section 2.2/2.3:

- Motorola wonders if the "coordinated mode" would have to be standardised ? ZTE assumes the coordination itself would not need to standardised, but it might result in some signalling.
- Ericsson wonders if internally in the UE between ISM and LTE transmissions coordinate, is this coordinated mode or uncoordinated ? I.e. is coordination only if the networks are coordinated, or also if only the UE internally coordinates ? ZTE assumes the network would have to be involved in this. Internal coordination could be first step.
- Huawei wonders if coordinated mode can work with an FDM solution ?
- Motorola thinks it is premature to include network level coordination
- CATT thinks uncoordinated approach can never solve type2. Mediatek agrees.
- => Will capture 3 modes:
 - 1) Uncoordinated
 - 2) Coordinated within UE only
 - 3) Coordinated with network level (UE gives assistance information to network)

Proposal 3:

- Basic question whether we would ever accept a solution in which the network would be restricted by the UE on what resources should be used.
- Ericsson thinks we should stick ofcourse to the Rel89 scheduler approach that the eNB determines where the UE is scheduled. But we could consider that if the UE is aware of problems on certain resources (similar to bad CQI in Rel89), the UE informs the network about this and the network takes it into account. ZTE agrees with Ericsson: whole scheduling is up to the UE, but UE would just give some assistance information to network
- Ericsson wonders how the UE could give a future prediction (kind of CQI report in time), but we can see with future contributions.
- ZTE proposes not to consider mode 1 (LTE can do what it likes and everybody else has to obey). Ericsson thinks mode1 should be the reference case.

=> Rest is noted; Indicated parts included in introductory sections of TR in email discussion

R2-104874: Considerations on interference avoidance for in-device coexistence CMCC Disc
 R2-104578: Clarification on the in-device coexistence interference avoidance CATT Disc
 Both Tdocs not treated.

*Could try to have initial overview text in TR (email)? Just description of the cases we want to study and where the focus will be no quantification of problems/solutions?
 Focus on potential problems with LTE receiver?*

Problem quantification

R2-104554: On scenarios of in-device coexistence CMCC Disc
 - Samsung wonders what the conclusion on the QC paper was in RAN4 ? The paper was not treated yet.
 - Motorola wonders about the importance of scenario 3 ? CMCC thinks from a terminal/user point of view this is important.
 - Mediatek thinks proposal 2 is reasonable.
 => Noted

R2-104914: LTE and ISM band coexistence considerations Nokia Corporation Disc
 not?
 Proposal 1:
 - Mediatek wonders why not consider the worst case, i.e. the cell edge UE ? Nokia thinks the radio should still work but we should not assume worst case of every factor. E.g. interfering radio does not transmit all the time.
 - Motorola wonders how we would identify this reasonable scenario ? Would this require input from RAN4. Nokia assumes the usage scenarios could play an important role (e.g. headset,...). Things should still work at the cell edge
 Proposes to add "multi-media downloading (e.g. HD video) using LTE, voice route to bluetooth headset"
 - Huawei wonders if this is not covered by earphone and traffic offload ? Nokia thinks there is a difference between voice and Multimedia in rate/traffic characteristics.
 - Ericsson wonders if this is not a relaxed scenario of the wireless router case ? Nokia indicates the radio is different.
 => Will add this extra usage scenario
 => Rest is noted

R2-104642: Analysis for ISM interference in IDLE ZTE Disc

How severe is the problem in practise if we do nothing ? E.g. considering typical signals strengths, traffic patterns, work ongoing for ISM band technologies,...

Potential solutions

R2-104444: Analysis in In-Device Coexistence Interference Avoidance MediaTek Disc
 General
 - ZTE wonders if we have a problem in IDLE ? Chairman assumes that a UE could simply not transmit at any LTE IDLE mode reception instance ? QC agrees that this should be possible in coordinated modes of operation. Motorola assumes that e.g. at Wifi there is more than enough flexibility to avoid problems in IDLE mode, but we can still check.
 - Ericsson thinks several of these questions (especially FDM) will require input from RAN4. Motorola assumes the general intention was to involve RAN4 as little as possible due to their load. So probably we should try to keep things band independent.
 Option 1: Move LTE signal away from ISM band
 => Can be included in TR as solution direction
 Option 2: Move ISM radio signals away from LTE signal
 - QC thinks e.g. if Wifi AP is in UE, this might be feasible
 - CMCC does not see a real need for sending LS to RAN4; if we ask, we should ask BT sig or IEEE. Samsung assumes AP case might be implementation aspect, offloading you cannot control.
 => Can be included in TR as solution direction

Option 3: Reduce ISM radio signal transmit power

=> Not include

Option 4: Enhanced LTE received power level

- CATT wonders what this means ? Will it mean increase eNB power ? Mediatek is thinking that ISM transmissions would only be enabled if the LTE signal is strong enough. Mediatek wants to point out that an interference scheme would not have to be activated at all LTE transmissions. So a kind of optimisation for non-cell-edge UE.

- QC assumes at the cell edge this would not work

- RIM wonders if this applies to connected mode ?

=> For now not included (remember that not at all LTE reception ISM transmission needs to be stopped)

Option 5: Increased antenna isolation

=> Will not be included

Option 6: Time domain multiplexing of interference avoidance

=> Will be included

Option 7: Usage of several filters

=> Option 7: Will not be included

R2-104910: Problem scenarios and proposed solutions for In-device coexistence Qualcomm Incorporated Disc REL-10 FS_SPIA_IDC

=> revised to R2-105211

R2-105211: Problem scenarios and proposed solutions for In-device coexistence Qualcomm Incorporated Disc REL-10 FS_SPIA_IDC

UL RLF

- LG what the UE does with UE RLF ? This is based on inter-module communication in the UE or based on measurements ? QC explains it is based on inter-module communication where LTE UL is causing problems to ISM DL, and the UE fakes an RLF and applies concerning procedures in LTE.

- Motorola thinks it is a very specific solution only for scenario 1 ? Also is the network not loosing control if the UE starts to fake ? QC agrees to these concerns and in that respect the second solution is better.

- CATT wonders if this would require a new cause in the RLF ?

- QC thinks solution 2.1 is preferable if RAN2 wants a solution with limited specification impact, even no ASN.1 impact. With solution 2.1, QC thinks ping-pong could be avoided by an intelligent network that would always check RSRQ before doing inter-freq handover.

- However QC agrees that in general solution 2 might be more performant.

- Intel wonders e.g. with band7 UL, since the LTE receiver is not impacted RSRQ will not work to prevent the ping-pong.

- QC agrees with all concerns, and has no strong preference for inclusion.

=> Not included in TR

Message based solutions

- Could be considered an option 1 solution, or even leading to TDM aspects.

- ZTE wonders if the eNB cannot get this information by measuring ? Mediatek wonders if there would be new measurements ? QC proposes no measurements in the report, just the transporting message is a measurement report.

- Intel thinks a message based solution is a kind of baseline for the coordinated network option.

=> Noted (can think more about this solution)

R2-104912: Text proposal for TR on in-device coexistence Qualcomm Incorporated Disc

R2-104922: Analysis on TDM-based in-device coexistence avoidance MediaTek Disc

R2-104880: Possible solutions for in-device interference avoidance LG Electronics Inc. Disc

R2-104382: Discussion on in-device coexistence scenarios and solutions Intel Corporation (UK) Ltd Disc

R2-104809: Further considerations on in-device coexistence interference avoidance Motorola Disc

All 5 Tdocs not treated

Too late/not available/withdrawn

R2-104899: Scenario analysis for in-device coexistence Huawei Disc
not treated

Continuation up to next meeting

EMAIL DISC [71#32] for first contents of TR (made available in first week; approval by end of 3rd week)

- according to agreements above

=>Final rapporteur's version will be v0.1.1 and be provided in R2-105214

7.7 SI: Other LTE Rel-10 SIs

Contributions related to SI on intra-eNB energy saving can be submitted under this agenda item.

No contributions.

8 UTRA Release 8 and earlier releases

8.1 In principle agreed CRs

[R2-104245](#) Clarification of the TCTF field encoding for 3.84 Mcps TDD IMB MBSFN IPWireless Inc. CR
25.321 0676 - F REL-8MBSFN-DOB
=> The CR is agreed

[R2-104246](#) Clarification of the TCTF field encoding for 3.84 Mcps TDD IMB MBSFN IPWireless Inc. CR
25.321 0677 - A REL-9MBSFN-DOB
- Other comment not needed
=> The CR is agreed

[R2-104255](#) Correction for IE Downlink Secondary Cell Info FDD handling Ericsson, ST-Ericsson CR
25.331 4195 - F REL-8RANimp-DCHSDPA
=> The CR is agreed. CR was at first agreed but then withdrawn as overlapping with CR R2-105117.

[R2-104256](#) Correction for IE Downlink Secondary Cell Info FDD handling Ericsson, ST-Ericsson CR
25.331 4196 - A REL-9RANimp-DCHSDPA
=> The CR is agreed. CR was at first agreed but then withdrawn as overlapping with CR R2-105118.

[R2-104257](#) Correction for IE Downlink Secondary Cell Info FDD handling Ericsson, ST-Ericsson CR
25.331 4197 - A REL-10 RANimp-DCHSDPA
=> The CR is agreed. CR was at first agreed but then withdrawn as overlapping with CR R2-105128.

[R2-104251](#) Incorrect inconsistency check on MAC-ehs reordering queue Panasonic CR 25.331
4191 - F REL-7TEI7
=> The CR is agreed

[R2-104252](#) Incorrect inconsistency check on MAC-ehs reordering queue Panasonic CR 25.331
4192 - A REL-8TEI7
=> The CR is agreed

[R2-104253](#) Incorrect inconsistency check on MAC-ehs reordering queue Panasonic CR 25.331
4193 - A REL-9TEI7
=> The CR is agreed

[R2-104254](#) Incorrect inconsistency check on MAC-ehs reordering queue Panasonic CR
25.331 4194 - A REL-10 TEI7
=> The CR is agreed

[R2-104258](#) Correction to VAS updatingHuawei CR 25.331 4198 - D REL-8TEI8
=> The CR is agreed

[R2-104259](#) Correction to VAS updatingHuawei CR 25.331 4199 - A REL-9TEI8
=> The CR is agreed

[R2-104260](#) Correction to VAS updatingHuawei CR 25.331 4200 - A REL-10 TEI8
=> The CR is agreed

8.2 Others

REL-4 TEI4:

REL-5 HSDPA-L23 (RAN2):

REL-5 TEI5:

REL-6 EDCH-L23 (RAN2):

REL-6 TEI6:

[R2-104404](#) Speed dependent scaling rules in HCS environment Ericsson, ST-EricssonCR 25.331
(4228) - F REL-6TEI6
- At RAN2#70-b we said we'll try to address absolute prio issue simultaneously. Status? That is already clear from 25.304, the scaling parameters do apply to abs priority.
- As an alternative we can have a rel'10 CR with a magic sentence
- ALU: HCS used means HCS configured in SIBs? ST-E: "HCS is used" is the normal terminology indicating HCS is broadcast. ALU: Since it's in the same IE, we could say "HCS is also present". That would be more complicated to specify.
- HW: We should check the UE box since we add a UE behavior unspecified. The sentences are NW requirements.
=> We will use a magic sentence on release 10, we won't have rel'6/7/8/9 CRs.
=> The CR is withdrawn

[R2-104405](#) Speed dependent scaling rules in HCS environment Ericsson, ST-EricssonCR 25.331
(4229) - A REL-7TEI6
=> The CR is withdrawn

[R2-104406](#) Speed dependent scaling rules in HCS environment Ericsson, ST-EricssonCR 25.331
(4230) - A REL-8TEI6
=> The CR is withdrawn

[R2-104407](#) Speed dependent scaling rules in HCS environment Ericsson, ST-EricssonCR 25.331
(4231) - A REL-9TEI6
=> The CR is withdrawn

[R2-104408](#) Speed dependent scaling rules in HCS environment Ericsson, ST-EricssonCR 25.331
(4232) - A REL-10 TEI6
=> The CR is revised in [R2-105000](#), Cat: F, TEI10

[R2-105000](#) Speed dependent scaling rules in HCS environment Ericsson, ST-EricssonCR 25.331
4232 - F REL-10 TEI10
=> The CR is withdrawn as topic is postponed

[R2-104411](#) RLC reset on a Signalling Radio Bearer Ericsson, ST-EricssonDisc REL-6TEI6
- HW: we have to follow proposal 3 and it can be left to NW implementation how to handle this.
- Nokia: One way to solve this is ensure that all NWs use value 1. Samsung agrees with Nokia, solving this in the UE will generate further procedural text.
=> We agree that in order to solve any issue, the NWs should set the max-rst value to 1.
- NSN would like to check further offline if there is another way to capture this.
- This can be discussed offline. ST-E indicates the most important aspect is for SRB2.
- NSN indicates the CT1 requirement was quite strong.
=> Noted

REL-7 RANimp-CPC (RAN1):

[R2-104410](#) L1 CPC status after reconfiguration on same serving cell Ericsson, ST-EricssonDisc
- Samsung: it's clear that is cell isn't changed the status should change. Nokia agrees it's clear UE should maintain the status. HW agrees. Infineon agrees with the exception of the sync A procedure as proposed in [R2-104443](#).
- ST-E: The question is whether the reconfig indicates new timing or continue. For new timing, UE won't retain the status.
- Nokia: CPC status remains, regardless of new timing info.
- The understanding is as indicated in proposal 1, except in case of new timing received. Nokia disagrees with the exception. Samsung asks if there is any relationship between sync A procedure and CPC?

- Offline discussion: What happens to CPC status in case there is a reconfig on the same serving cell and new timing info is provided?
- => Noted

- [R2-104430](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321
(0690) - F REL-7RANimp-CPC
- HW agrees with QC comment but doesn't think the CR is necessary.
 - QC is not changing the procedural text, only the definition is changed. HW doesn't think that should change the UE behavior.
 - ALU: maybe the coversheet can indicate that the issue is with the definition, not the procedural text, and there is no interop issue. It would be beneficial to align the definition to the procedural text.
 - ITD: Beneficial to align
- => The CR is revised in [R2-105001](#)
- [R2-105001](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321 0690
- F REL-7RANimp-CPC
- => The CR is revised in [R2-105092](#)
- [R2-105092](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321 0690
1 F REL-7RANimp-CPC
- Ericsson: what happens to the default when the UE gets a new grant during that time. QC understands that the grant will be ignored. Nokia agrees.
 - Infineon doesn't agree. Samsung shares that understanding
- =>The CR is postponed
- [R2-104433](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321
(0691) - A REL-8RANimp-CPC
- => The CR is revised in [R2-105002](#)
- R2-105002 Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321 0691
- A REL-8RANimp-CPC
- The CR is revised in [R2-105093](#)
- R2-105093 Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321 0691
1 A REL-8RANimp-CPC
- => The CR is postponed
- [R2-104438](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321
(0692) - A REL-9RANimp-CPC
- => The CR is revised in [R2-105007](#)
- [R2-105007](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321 0692
- A REL-9RANimp-CPC
- The CR is revised in [R2-105098](#)
- [R2-105098](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.321 0692
1 A REL-9RANimp-CPC
- => The CR is postponed
- [R2-104440](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331
(4233) - F REL-7RANimp-CPC
- ALU: maybe the coversheet can indicate that there is no interop issue.
- => The CR is revised in [R2-105003](#)
- [R2-105003](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331 4233
- F REL-7RANimp-CPC
- The CR is revised in [R2-105094](#)
- R2-105094 Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331 4233
1 F REL-7RANimp-CPC
- Ericsson: prefer to postpone the CR as it seems to indicate UE will use the grant at all times.
 - Infineon: ok to postpone
- => The CR is postponed
- [R2-104441](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331
(4234) - A REL-8RANimp-CPC
- => The CR is revised in [R2-105004](#)

- [R2-105004](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331 4234
 - A REL-8RANimp-CPC
 - The CR is revised in [R2-105095](#)
- [R2-105095](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331 4234
 1 A REL-8RANimp-CPC
 => The CR is postponed
- [R2-104442](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331
 (4235) - A REL-9RANimp-CPC
 => The CR is revised in [R2-105005](#)
- [R2-105005](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331 4235
 - A REL-9RANimp-CPC
 - The CR is revised in [R2-105096](#)
- [R2-105096](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331 4235
 1 A REL-9RANimp-CPC
 => The CR is postponed
- [R2-104443](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331
 (4236) - A REL-10 RANimp-CPC
 => The CR is revised in [R2-105006](#)
- [R2-105006](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331 4236
 - A REL-10 RANimp-CPC
 - The CR is revised in [R2-105097](#)
- [R2-105097](#) Clarification to the default SG in DTX Cycle 2 Qualcomm Incorporated CR 25.331 4236
 1 A REL-10 RANimp-CPC
 => The CR is postponed
- [R2-104566](#) UE behavior in case a 'physical layer synchronization procedure A' in combination with CPC
 Infineon Technologies CR 25.331 (4261) - F REL-7TEI7
 - Wrong WI code, should be RANimp-CPC
 - What is the status of R5-104170? This was agreed in RAN5 on Monday.
 - Rel'10 shadow?
 - ITD: what is the use case for this change? There may be cases where NW needs to perform a sync A without changing CPC timing. Infineon thinks that for this case the NW can always provide the timing again. Ericsson: need to check. Infineon: feedback is needed soon.
 => The CR is postponed
- [R2-104567](#) UE behavior in case a 'physical layer synchronization procedure A' in combination with CPC
 Infineon Technologies CR 25.331 (4262) - A REL-8TEI7
 => The CR is postponed
- [R2-104568](#) UE behavior in case a 'physical layer synchronization procedure A' in combination with CPC
 Infineon Technologies CR 25.331 (4263) - A REL-9TEI7
 => The CR is postponed
- REL-7 MIMO-L23 (RAN2):**
- [R2-104361](#) Correction to RRC Signaling of S-CPICH power offset for MIMO UEs Huawei CR 25.331
 (4215) - F REL-8MIMO-L23
 - NSN: What should the CR category be? This is not solving anything broken since other releases are correct. Samsung: we use cat D only for really editorial CRs, this should be F
 Infineon: The name of the IE isn't correct in the coversheet. That can be fixed in a revision.
 => The CR is revised in [R2-105008](#)
- [R2-105008](#) Correction to RRC Signaling of S-CPICH power offset for MIMO UEs Huawei CR 25.331
 4215 - F REL-8MIMO-L23
 => The CR is agreed
- [R2-104362](#) Correction to missing ASN.1 for MIMO parameters (Rel-8) Huawei CR 25.331 (4216)
 - F REL-8MIMO-L23
 - why no rel'7 CR?

- Ericsson: Issue of keeping the same format for CCCH/DCCH has been raised in the past and it was decided to have separate formats. If we do correct this we would not create consistency because the NCE's wouldn't be placed at the same levels.
- Nokia: It's not good to have different messages in the different branches of the ASN.1. We should check what can be done.
- NSN: If we have this change we need to check the versions we're changing, it's neither v7f nor v7g. That didn't need to be changed.
- Offline discussion needed.

=> The CR is revised in [R2-105073](#)

[R2-105073](#) Correction to missing ASN.1 for MIMO parameters (Rel-8) Huawei CR 25.331 4216 - F REL-8MIMO-L23

=> The CR is agreed

[R2-104363](#) Correction to missing ASN.1 for MIMO parameters (Rel-9) Huawei CR 25.331 (4217)
- A REL-9MIMO-L23

=> The CR is agreed in [R2-105089](#)

[R2-104364](#) Correction to missing ASN.1 for MIMO parameters (Rel-10) Huawei CR 25.331 (4218)
- A REL-10 MIMO-L23

=> The CR is agreed in [R2-105090](#)

[R2-104399](#) Clarification on the maximum HS-DSCH transport block size for HS-DSCH UE Categories 15 and 17 Alcatel-Lucent, Alcatel-Lucent Shanghai Bell CR 25.306 (0270) - F REL-7 MIMO-L23

- no rel'8/9 shadows? "Shadow" is in [R2-104400](#). Treat together
- QC: when low code rate was introduced it was meant to allow simpler rf components hence it will be static and cannot be dynamic.
- Ericsson: we can expect UE to use full rate if the conditions of the notes are met. However we don't really need to change the table, it's already clear from the procedural text.
- HW has the same understanding as E///.
- Group understanding is clear the intention is as per ALU's proposal, however CR is not needed.

=> CR is not agreed

[R2-104741](#) Clarification of when to clear IE Precoding weight set restriction" from MIMO_PARAMS" Alcatel-Lucent CR 25.331 (4298) - F REL-7MIMO-L23

- Ericsson: can we achieve the same with removing the statement after the "else"?
- Samsung: In this case we can "un-configure" the weight restrictions.

=> The CR is agreed in [R2-105009](#)

[R2-104742](#) Clarification of when to clear IE Precoding weight set restriction" from MIMO_PARAMS" Alcatel-Lucent CR 25.331 (4299) - A REL-8MIMO-L23

=> The CR is agreed in [R2-105010](#)

[R2-104743](#) Clarification of when to clear IE Precoding weight set restriction" from MIMO_PARAMS" Alcatel-Lucent CR 25.331 (4300) - A REL-9MIMO-L23

=> The CR is agreed in [R2-105011](#)

[R2-104744](#) Clarification of when to clear IE Precoding weight set restriction" from MIMO_PARAMS" Alcatel-Lucent CR 25.331 (4301) - A REL-10 MIMO-L23

=> The CR is agreed in [R2-105012](#)

REL-7 RANimp-16QamUplink (RAN1):

[R2-104330](#) Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant Infineon Technologies CR 25.321 (0682) - F REL-7RANimp-16QamUplink

- Ericsson: this doesn't impact 16QAM only. Infineon agrees that since the table can apply to QPSK then it may impact non-16QAM UEs as well.
- Ericsson: need to understand how UE vendors understand the "max" operation in the CR. Maybe some UEs can handle this.
- Samsung: agrees with the intention and wording of the CR.
- HW: this is not in release 6 of the spec and we should correct it.
- Companies can discuss further offline:
- Issue is max operation of non numerical value with numerical value is missing

- =>The CR is revised in [R2-105078](#)
- [R2-105078](#) Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant
Infineon Technologies CR 25.321 0682 - F REL-7RANimp-16QamUplink
- QC: need more time to check
 - Another way to fix this is to define max operation with non-numerical value. Infineon thinks that would be weird because the min results in the same result.
 - Samsung would like to keep it the way it's proposed in the CR.
- => The CR is agreed
- [R2-104331](#) Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant
Infineon Technologies CR 25.321 (0683) - A REL-8RANimp-16QamUplink
- => The CR is revised in [R2-105079](#)
- [R2-105079](#) Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant
Infineon Technologies CR 25.321 0683 - A REL-8RANimp-16QamUplink
- => The CR is agreed
- [R2-104332](#) Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant
Infineon Technologies CR 25.321 (0684) - A REL-9RANimp-16QamUplink
- => The CR is revised in [R2-105080](#)
- [R2-105080](#) Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant
Infineon Technologies CR 25.321 0684 - A REL-9RANimp-16QamUplink
- => The CR is agreed

REL-7 LCRTDD-EDCH-L23 (RAN2):

REL-7 RANimp-L2DataRates (RAN2):

- [R2-104445](#) Flexible RLC only applies to user RB, not SRB Qualcomm Incorporated CR 25.331
(4237) - F REL-7RANimp-L2dataRates
- Principle agreement from RAN2#70b: RAN2 reconfirms that Flexible RLC PDU size doesn't apply to SRB as explained in R2-081319.
 - Panasonic: more cases need to be captured, for ex when pdu size is changed from fixed to flex. QC: which are those other cases? Any change from fixed to flex.
 - Nokia: agree with the intention of the CR, but not the method; would prefer not adding UE requirements and use "UE behavior unspecified" instead.
- => The CR is revised in [R2-105017](#)
- [R2-105017](#) Flexible RLC only applies to user RB, not SRB Qualcomm Incorporated CR 25.331 4237
- F REL-7RANimp-L2dataRates
- => The CR is agreed
- [R2-104446](#) Flexible RLC only applies to user RB, not SRB Qualcomm Incorporated CR 25.331
(4238) - A REL-8RANimp-L2dataRates
- => The CR is revised in [R2-105018](#)
- [R2-105018](#) Flexible RLC only applies to user RB, not SRB Qualcomm Incorporated CR 25.331 4238
- A REL-8RANimp-L2dataRates
- Coversheet needs to indicate the difference with cat F CR.
- => With the change in the coversheet the CR is agreed in [R2-105137](#) r1
- [R2-104448](#) Flexible RLC only applies to user RB, not SRB Qualcomm Incorporated CR 25.331
(4239) - A REL-9RANimp-L2dataRates
- => The CR is revised in [R2-105019](#)
- [R2-105019](#) Flexible RLC only applies to user RB, not SRB Qualcomm Incorporated CR 25.331 4239
- A REL-9RANimp-L2dataRates
- => The CR is agreed
- [R2-104449](#) Flexible RLC only applies to user RB, not SRB Qualcomm Incorporated CR 25.331
(4240) - A REL-10 RANimp-L2dataRates
- => The CR is revised in [R2-105020](#)
- [R2-105020](#) Flexible RLC only applies to user RB, not SRB Qualcomm Incorporated CR 25.331 4240
- A REL-10 RANimp-L2dataRates
- => The CR is agreed

REL-7 RANimp-EnhState (RAN2):

- [R2-104315](#) RRC Connection Setup in enhanced CELL_FACH state Broadcom Corporation Disc
REL-7RANImp-EnhState
=> Company not present, not treated
- [R2-104335](#) Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD
Infineon Technologies CR 25.302 (0199) - F REL-7RANImp-EnhState
- Status of related RAN1 CR on 25.214? 25.214 CR agreed at the last meeting.
- Related to [R2-104590](#)
- Offline checking needs to happen.
=> The CR is revised in [R2-105113](#)
- [R2-105113](#) Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD
Infineon Technologies CR 25.302 0199 - F REL-7RANImp-EnhState
=> The CR is agreed
- [R2-104336](#) Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD
Infineon Technologies CR 25.302 (0200) - A REL-8RANImp-EnhState
=> The CR is revised in [R2-105114](#)
- [R2-105114](#) Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD
Infineon Technologies CR 25.302 0200 - A REL-8RANImp-EnhState
=> The CR is agreed
- [R2-104337](#) Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD
Infineon Technologies CR 25.302 (0201) - A REL-9RANImp-EnhState
=> The CR is revised in [R2-105115](#)
- [R2-105115](#) Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD
Infineon Technologies CR 25.302 0201 - A REL-9RANImp-EnhState
=> The CR is agreed
- [R2-104590](#) Corrections to Enhanced CELL_FACH state for FDD Infineon Technologies CR 25.308
(0100) - F REL-7RANImp-EnhState
- QC: why remove text on mac-ehs processing in 14.1? Infineon: no strong opinion.
- Nokia: add "the" to "dedicated H-RNTI"
- ITD: what's the intention for "correct"->"dedicated. Infineon: description is above.
- Samsung: last change of 14.1: what's does "data" transmission mean? Not signaling?
Intention is to not include feedback. It's clear that CQI/ACK don't go on RACH.
- QC: What about Enh. UL in cell fach? That's handled in rel'8 shadow.
- HW: Why remove CTCH in section 14? Because CTCH is for CBS, not supported in
CELL_FACH. Sentence "The UE is only required to receive BCCH on HS-DSCH when the
UE is configured with a dedicated H-RNTI." Is misleading if the full paragraph isn't read
together.
- ITD: in 15.1, there are other cases when UE has to resume DRX.
=> The CR is revised in [R2-105021](#)
- [R2-105021](#) Corrections to Enhanced CELL_FACH state for FDD Infineon Technologies CR 25.308
0100 - F REL-7RANImp-EnhState
- Latest RAN2 agreement not taken into account, propose to solve that at next meeting.
=> The agreement is deferred to email approval [71#09]
- Deadline Thursday September 2nd
- Final Tdoc provided in [R2-105133](#) r1
- [R2-104591](#) Corrections to Enhanced CELL_FACH state for FDD Infineon Technologies CR 25.308
(0101) - A REL-8RANImp-EnhState
- Difference with 4590 should be indicated in "other comments"
=> The CR is revised in [R2-105022](#)
- [R2-105022](#) Corrections to Enhanced CELL_FACH state for FDD Infineon Technologies CR 25.308
0101 - A REL-8RANImp-EnhState
=> R2-105022 was not provided and is therefore withdrawn. The agreement is deferred to
email approval [71#09]
- Deadline Thursday September 2nd
- Final Tdoc provided in R2-105134 r1
- [R2-104592](#) Corrections to Enhanced CELL_FACH state for FDD Infineon Technologies CR 25.308
(0102) - A REL-9RANImp-EnhState

- => The CR is revised in [R2-105023](#)
- [R2-105023](#) Corrections to Enhanced CELL_FACH state for FDD Infineon Technologies CR 25.308
0102 - A REL-9RANimp-EnhState
=> R2-105023 was not provided and is therefore withdrawn. The agreement is deferred to email approval [71#09]
- Deadline Thursday September 2nd
- Final Tdoc provided in R2-105135 r1
- [R2-104593](#) Corrections to Enhanced CELL_FACH state for FDD Infineon Technologies CR 25.308
(0103) - A REL-10 RANimp-EnhState
=> The CR is revised in [R2-105024](#)
- [R2-105024](#) Corrections to Enhanced CELL_FACH state for FDD Infineon Technologies CR 25.308
0103 - A REL-10 RANimp-EnhState
=> R2-105024 was not provided and is therefore withdrawn. The agreement is deferred to email approval [71#09]
- Deadline Thursday September 2nd
- Final Tdoc provided in R2-105136 r1
- [R2-104383](#) Removal of HS-PDSCH channelisation codes selection for paging reception Infineon Technologies CR 25.331 (4224) - F REL-7RANimp-EnhState
- Ericsson: there is nothing broken in the specification. This is more of an editorial correction.
- Infineon: agree this is an implementation issue and nothing is broken.
- Chairman: We need to focus on critical corrections.
- QC: agree it's not a change but would prefer if redundancies are removed.
- We could have a rel'10 CR with magic sentence?
- QC: is the TDD section also a duplicate? Infineon indicates the TDD section is handled starting from rel'8.
- Ericsson: if the section remains for TDD it's not really a cleanup.
- The group agrees this is redundant.
- ST-Ericsson: What is the magic sentence providing?
=> The CR is not agreed
- [R2-104384](#) Removal of HS-PDSCH channelisation codes selection for paging reception Infineon Technologies CR 25.331 (4225) - A REL-8RANimp-EnhState
=> The CR is not agreed
- [R2-104385](#) Removal of HS-PDSCH channelisation codes selection for paging reception Infineon Technologies CR 25.331 (4226) - A REL-9RANimp-EnhState
=> The CR is not agreed
- [R2-104386](#) Removal of HS-PDSCH channelisation codes selection for paging reception Infineon Technologies CR 25.331 (4227) - A REL-10 RANimp-EnhState
=> The CR is not agreed
- [R2-104387](#) Addition of HARQ procedure for HS-SCCH less paging operation in CELL_PCH and URA_PCH state Infineon Technologies CR 25.321 (0687) - F REL-7RANimp-EnhState
- Nokia: CR isn't needed, the UE behavior is captured in 25.214. Infineon indicates 214 doesn't define any mac operation.
- HW: This is not exactly the same mechanism with HS-SCCH-less, that could create more issues.
- HW: in 331, the HSL operation only applies to Cell-DCH.
- QC: supports the CR because it can create interop issues later on.
- Feeling that there is no need to capture more details on this procedure. And this is not a critical correction
- Chairman: prefer to avoid talking about RRC states in MAC. Infineon indicates in some cases we cannot avoid this.
=> There is some support for adding the description in the MAC but the wording may need to be revised and a new section may need to be added.
=> The CR is postponed to the next meeting

[R2-104388](#) Addition of HARQ procedure for HS-SCCH less paging operation in CELL_PCH and URA_PCH state Infineon Technologies CR 25.321 (0688) - A REL-8RANImp-EnhState
=> The CR is postponed to the next meeting

[R2-104389](#) Addition of HARQ procedure for HS-SCCH less paging operation in CELL_PCH and URA_PCH state Infineon Technologies CR 25.321 (0689) - A REL-9RANImp-EnhState
=> The CR is postponed to the next meeting

[R2-104452](#) HARQ Buffer upon H-RNTI switch in Enhanced CELL_FACH Qualcomm Incorporated CR 25.321 (0693) - F REL-7RANImp-EnhState

- Principle agreement from RAN2#70-b: We agree to allow both UE implementations. We need to find a good way to capture this.
 - HW: the sentence on UE having >1 buffer doesn't say what UE does with the data. QC: the UE action is indicated in the sentence just before.
 - Samsung: in added paragraph there is no need to mention the state. QC agrees, but it helps readability.
 - Samsung: part about 2 buffers can be captured in a note.
 - Infineon: We don't need to mention anything about this implementation option. Nokia agrees it doesn't need to be captured at all, and if needed, could be done in a note.
 - ST-E: We had an agreement to capture this. We can work on the exact form to capture this.
 - Ericsson: We need to have a note to capture the potential UE behavior to indicate it to the NW. Nokia thinks a note would only confuse 25.306.
- => We agree to capture this statement in a note. Need to decide where to do this. HW would prefer to avoid mentioning NW behavior.
- Ericsson would be happy just putting the >1 buffer text in a note.
- => The Note will contain the text in the procedural text.
- CATT: starting from rel'8, the "for FDD" can be removed.
- =>The CR is revised in [R2-105025](#)

[R2-105025](#) HARQ Buffer upon H-RNTI switch in Enhanced CELL_FACH Qualcomm Incorporated CR 25.321 0693 - F REL-7RANImp-EnhState

- Nokia: if the UE uses more than one soft buffer per harq, does it impact the total # of soft channel bits / harq. QC: the intention isn't to impact the amount of bits/harq, it is done in a separate section.
 - Ericsson: NW knows how to use this. Open to indicate in the note how this can be used by NW.
 - Samsung: No concern with the note as long as UE complies with requirements. UE can implement what it wants. Note isn't needed. NW needs to know that UE may have more than 1 buffer/harq.
 - QC: with 2 transmissions in parallel from NW, we need to indicate to NW that a possible UE implementation won't discard the packet received in another reception.
 - Infineon: this is introducing a feature and isn't agreeable.
 - Companies agree on the principle and changes apart from the note, the note still needs to be discussed
- =>The CR is postponed

[R2-104453](#) HARQ Buffer upon H-RNTI switch in Enhanced CELL_FACH Qualcomm Incorporated CR 25.321 (0694) - A REL-8RANImp-EnhState
=> The CR is revised in [R2-105026](#)

[R2-105026](#) HARQ Buffer upon H-RNTI switch in Enhanced CELL_FACH Qualcomm Incorporated CR 25.321 0694 - A REL-8RANImp-EnhState
- The CR is postponed

[R2-104454](#) HARQ Buffer upon H-RNTI switch in Enhanced CELL_FACH Qualcomm Incorporated CR 25.321 (0695) - A REL-9RANImp-EnhState
=> The CR is revised in [R2-105027](#)

[R2-105027](#) HARQ Buffer upon H-RNTI switch in Enhanced CELL_FACH Qualcomm Incorporated CR 25.321 0695 - A REL-9RANImp-EnhState
- The CR is postponed

- [R2-104455](#) LI size for CCCH(SRB#0) in enhanced CELL_FACH operation Qualcomm Incorporated CR 25.331 (4242) - F REL-7RANimp-EnhState
- Ericsson: Why is this CR needed for rel'7? Why not in rel'5/6? If there is no interop issue in rel'5/6 why should we expect one in rel'7/8/9/10?
 - QC: what about section 13.6e? That wasn't applicable to rel'5/6.
 - Field name: DL UM RLC length indicator size in 13.6
 - Ericsson: if everyone is in sync there is no interop issue.
 - Nokia: why do we still need the first change? QC indicates we had the first change because a number of companies wanted to have a consistent approach. Panasonic agrees both changes would be needed. Panasonic agrees we don't have a interop issue.
 - Ericsson: we can make clear in the coversheet that the first change is editorial.
 - early implementability sentence only applies to first change. There isn't anything to implement in earlier releases.
 - Name of IE is modified and sentence added in coversheet to indicate first modification is editorial.
- => The CR is revised in [R2-105119](#)
- [R2-105119](#) LI size for CCCH(SRB#0) in enhanced CELL_FACH operation Qualcomm Incorporated CR 25.331 4242 - F REL-7RANimp-EnhState
- => The CR is agreed
- [R2-104456](#) LI size for CCCH(SRB#0) in enhanced CELL_FACH operation Qualcomm Incorporated CR 25.331 (4243) - A REL-8RANimp-EnhState
- Difference between cat F and A CR should be indicated in "Other comments"
- => The CR is revised in [R2-105120](#)
- [R2-105120](#) LI size for CCCH(SRB#0) in enhanced CELL_FACH operation Qualcomm Incorporated CR 25.331 4243 - A REL-8RANimp-EnhState
- Difference between cat F and A CR should be indicated in "Other comments"
- => With this change the CR is agreed in R2-105138 r1
- [R2-104457](#) LI size for CCCH(SRB#0) in enhanced CELL_FACH operation Qualcomm Incorporated CR 25.331 (4244) - A REL-9RANimp-EnhState
- => The CR is revised in [R2-105121](#)
- [R2-105121](#) LI size for CCCH(SRB#0) in enhanced CELL_FACH operation Qualcomm Incorporated CR 25.331 4244 - A REL-9RANimp-EnhState
- => The CR is agreed
- [R2-104458](#) LI size for CCCH(SRB#0) in enhanced CELL_FACH operation Qualcomm Incorporated CR 25.331 (4245) - A REL-10 RANimp-EnhState
- => The CR is revised in [R2-105122](#)
- [R2-105122](#) LI size for CCCH(SRB#0) in enhanced CELL_FACH operation Qualcomm Incorporated CR 25.331 4245 - A REL-10 RANimp-EnhState
- =>The CR is agreed
- [R2-104497](#) Reception of Cell Change Order in CELL_PCH state SamsungCR 25.331 (4254) - F REL-7RANimp-EnhState
- Nokia: What is the use case for this?
 - Samsung: Currently, if NW sends CCO to UE, nothing prevents UE from receiving the message.
 - Ericsson: this is a change in functionality. Samsung: the main changes aren't really needed.
 - ST-E: How does this impact UE implementations? Are there other messages that aren't supported in CELL_PCH.
 - Nokia: same issue would apply to inter-system HO message.
 - Samsung: no interest from NW vendors to use this. In cell pch state, ue doesn't send measurement to NW so NW cannot make a good decision.
 - Panasonic: Current status is this message isn't supported in cell pch.
- => The CR is withdrawn
- [R2-104498](#) Reception of Cell Change Order in CELL_PCH state SamsungCR 25.331 (4255) - A REL-8 RANimp-EnhState
- => The CR is withdrawn

- [R2-104499](#) Reception of Cell Change Order in CELL_PCH state SamsungCR 25.331 (4256) - A
REL-9RANimp-EnhState
=> The CR is withdrawn
- [R2-104500](#) Reception of Cell Change Order in CELL_PCH state SamsungCR 25.331 (4257) - A
REL-10 RANimp-EnhState
=> The CR is withdrawn
- [R2-104639](#) State transition upon HS-DSCH reception in CELL_PCH state Huawei CR 25.331
(4281) - F REL-7RANimp-EnhState
- Principle agreement from RAN2#70b:
- UE will only move to CELL_FACH after either
- successfully decoding a data transmission
- at the end of the 5 subframes where NB may transmit an HRNTI to this UE
- Panasonic: why do we need to keep the sentence on receiving HS-DSCH? HW indicates it is related to a different sub-clause.
- Infineon: the wording of second bullet should indicate that nb of tx can change
- ITD: The wording shouldn't be so RAN1 specific.
- Discussion can happen offline on the terminology
=> The CR is withdrawn and instead a CR on MAC is available in [R2-105031](#)
- [R2-105031](#) State transition upon HS-DSCH reception in CELL_PCH state Huawei CR 25.321 0701
- F REL-7RANimp-EnhState
=> The CR is deferred to email approval
- [R2-104641](#) State transition upon HS-DSCH reception in CELL_PCH state Huawei CR 25.331
(4282) - A REL-8RANimp-EnhState
=> The CR is withdrawn, see [R2-105032](#) instead
- [R2-105032](#) State transition upon HS-DSCH reception in CELL_PCH state Huawei CR 25.321 0702
- A REL-8RANimp-EnhState
=> The CR is deferred to email approval
- [R2-104643](#) State transition upon HS-DSCH reception in CELL_PCH state Huawei CR 25.331
(4283) - A REL-9RANimp-EnhState
=> The CR is withdrawn and instead a CR on MAC is available in [R2-105033](#)
- [R2-105033](#) State transition upon HS-DSCH reception in CELL_PCH state Huawei CR 25.321 0703
- A REL-9RANimp-EnhState
=> The CR is deferred to email approval [71#10]
- [R2-104645](#) State transition upon HS-DSCH reception in CELL_PCH state Huawei CR 25.331
(4284) - A REL-10 RANimp-EnhState
=> The CR is withdrawn and instead a CR on MAC is available in [R2-105034](#)
- [R2-105034](#) State transition upon HS-DSCH reception in CELL_PCH state Huawei CR 25.321 x -
A REL-10 RANimp-EnhState
- No rel'10 MAC spec exists
=> Withdrawn

REL-7 RANimp-64QamDownlink (RAN1):

- [R2-104400](#) Clarification on the code rate restriction in HS-DSCH UE Categories 19 Alcatel-Lucent, Alcatel-Lucent Shanghai Bell CR 25.306 (0271) - F REL-8RANimp-64QamMimoHsdpa, RANimp-DCHSDPA
- Treat with [R2-104399](#)
- Ericsson: supports the addition of the sentence in cat 19
- Only the "simultaneous" in the table and the sentence in cat19.
- Ericsson: we could have F/A on this CR and treat the other CR independantly.
=> The CR is revised in [R2-105035](#)
- [R2-105035](#) Clarification on the code rate restriction in HS-DSCH UE Categories 19 Alcatel-Lucent, Alcatel-Lucent Shanghai Bell CR 25.306 0271 - F REL-8RANimp-64QamMimoHsdpa, RANimp-DCHSDPA
=> The CR is agreed

- [R2-104401](#) Clarification on the code rate restriction in HS-DSCH UE Categories 19 Alcatel-Lucent, Alcatel-Lucent Shanghai Bell CR 25.306 (0272) - A REL-9RANimp-64QamMimoHsdpa, RANimp-DCHSDPA
=> The CR is revised in [R2-105036](#)
- [R2-105036](#) Clarification on the code rate restriction in HS-DSCH UE Categories 19 Alcatel-Lucent, Alcatel-Lucent Shanghai Bell CR 25.306 0272 - A REL-9RANimp-64QamMimoHsdpa, RANimp-DCHSDPA
=> The CR is agreed
- REL-7 TEI7:**
- [R2-104358](#) Clarification on PDCP CID field (Rel-7) Huawei CR 25.323 (0318) - F REL-7 TEI7
 - Ericsson: What is the problem that appeared in rel'7? No specific issue, the spec isn't consistent with itself.
 - Ericsson: if this doesn't solve a problem, it's more appropriate for rel'9?
 - We'll have the CR for rel'9 only? Ok.
 - ALU: Could we have a rule that we only have a CR to the latest version of the spec if the correction isn't solving a problem.
 - QC: concern with applying such a rule blindly.
 - Chairman: we won't apply it blindly, it can be discussed and only provides a guideline for companies.
 - Ericsson: How to write the interop impact in those cases? There shouldn't be interop issue if it's just a clarification. This will be updated
 - CR will be done for rel'9 only.
=> The CR is withdrawn
- [R2-104359](#) Clarification on PDCP CID field (Rel-8) Huawei CR 25.323 (0319) - A REL-8 TEI7
=> The CR is withdrawn
- [R2-104360](#) Clarification on PDCP CID field (Rel-9) Huawei CR 25.323 (0320) - A REL-9 TEI7
 - Cat should be F
 - Interop issue 1 should not exist; should say no interop issue
=> The CR is revised in [R2-105037](#)
- [R2-105037](#) Clarification on PDCP CID field (Rel-9) Huawei CR 25.323 0320 - F REL-9 TEI9
=> The CR was agreed in the meeting but it had to be revised in R2-105266 due to wrong WI code
- R2-105266 Clarification on PDCP CID field (Rel-9) Huawei CR 25.323 0320 1 F REL-9 TEI9
=> CR is agreed
- [R2-104424](#) Handling of 2 Byte AMD RLC PDU (zero payload) issue Qualcomm Incorporated Disc REL-7TEI7
 - Nokia: what is the point of defining a new padding PDU? Anyways transmitter can transmit those PDUs. QC indicates the intention is to not allow those PDUs to be transmitted.
 - Nokia: padding pdu is not a protocol layer.
 - QC: don't want to allow PDUs made of sequence numbers only and no data to be transmitted.
 - HW: is this possible in the field?
 - Samsung: don't see how sending such PDU is legal. An AM PDU cannot be 2 bytes.
 - Ericsson: No reason for a NW to use such strange PDUs but why specify it? QC indicates it impacts UE implementation.
 - QC: Nobody seem to say those PDUs can be transmitted. Should we specify that?
 - Nokia: Is this theoretical or is this a real problem? QC: It has been observed.
=> Noted
- [R2-104426](#) Handling of 2 Byte AMD RLC PDU (zero payload) issue Qualcomm Incorporated CR 25.322 (0380) - F REL-7TEI7
=> Not treated
- [R2-104427](#) Handling of 2 Byte AMD RLC PDU (zero payload) issue Qualcomm Incorporated CR 25.322 (0381) - A REL-8TEI7
=> Not treated

- [R2-104428](#) Handling of 2 Byte AMD RLC PDU (zero payload) issue Qualcomm Incorporated CR 25.322 (0382) - A REL-9TEI7
=> Not treated
- [TDD]
- [R2-104579](#) Correction to default radio configuration #20 ZTE CR 25.331 (4268) - F REL-7 TEI7
=> withdrawn
- [R2-104594](#) Correction to default radio configuration #20 ZTE CR 25.331 (4279) - F REL-7 TEI7
- Magic sentence needs revision
- Chairman: Why are 2 bits not enough? Because we need to cover the 15 TFC, so 4 bits will be sufficient.
- NSN: the “reason for change” should be developed more to explain why the 2 bits aren’t sufficient.
=> The CR is revised in [R2-105013](#)
- [R2-105013](#) Correction to default radio configuration #20 ZTE CR 25.331 4279 - F REL-7 TEI7
=> The CR is agreed
- [R2-104580](#) Correction to default radio configuration #20 ZTE CR 25.331 (4269) - A REL-8 TEI7
=> The CR is revised in [R2-105014](#)
- [R2-105014](#) Correction to default radio configuration #20 ZTE CR 25.331 4269 - A REL-8 TEI7
=> The CR is agreed
- [R2-104581](#) Correction to default radio configuration #20 ZTE CR 25.331 (4270) - A REL-9 TEI7
=> The CR is revised in [R2-105015](#)
- [R2-105015](#) Correction to default radio configuration #20 ZTE CR 25.331 4270 - A REL-9 TEI7
=> The CR is agreed
- [R2-104582](#) Correction to default radio configuration #20 ZTE CR 25.331 (4271) - A REL-10 TEI7
=> The CR is revised in [R2-105016](#)
- [R2-105016](#) Correction to default radio configuration #20 ZTE CR 25.331 4271 - A REL-10 TEI7
=> The CR is agreed
- [TDD]
- [R2-104583](#) Clarifications to the intra-frequency measurement event for 1.28Mcps TDD ZTE CR 25.331 (4272) - F REL-7TEI7
=> The CR is revised in [R2-104954](#)
- [R2-104954](#) Clarifications to the intra-frequency measurement event for 1.28Mcps TDD ZTE CR 25.331 4272 - F REL-7TEI7
- Chairman: if magic sentence is used, why not have a rel’10 CR with sentence?
o Magic sentence usage can be discussed offline
- No comments on the other aspects of the CR.
- Offline discussion: preferable to have a rel’7/8/9/10 CR with a magic sentence to ensure UE vendors can spot this correction.
=> The CR is agreed
- [R2-104584](#) Clarifications to the intra-frequency measurement event for 1.28Mcps TDD ZTE CR 25.331 (4273) - A REL-8TEI7
=> The CR is revised in [R2-104955](#)
- [R2-104955](#) Clarifications to the intra-frequency measurement event for 1.28Mcps TDD ZTE CR 25.331 4273 - A REL-8TEI7
=> The CR is agreed

- [R2-104585](#) Clarifications to the intra-frequency measurement event for 1.28Mcps TDD ZTE CR
25.331 (4274) - A REL-9TEI7
=> The CR is revised in [R2-104956](#)
- [R2-104956](#) Clarifications to the intra-frequency measurement event for 1.28Mcps TDD ZTE CR
25.331 4274 - A REL-9TEI7
=> The CR is agreed
- [R2-104586](#) Clarifications to the intra-frequency measurement event for 1.28Mcps TDD ZTE CR
25.331 (4275) - A REL-10 TEI7
=> The CR is revised in [R2-104957](#)
- [R2-104957](#) Clarifications to the intra-frequency measurement event for 1.28Mcps TDD ZTE CR
25.331 4275 - A REL-10 TEI7
=> The CR is agreed
- [R2-104460](#) On the need for Corresponding RLC Side re-establishment, when the 'Use special value of HE field' is no longer configured Qualcomm Incorporated Disc REL-7
RANImp-EnhState
- Wrong WI code, should be TEI7.
- Discuss with R2-104721
=> Noted
- [R2-104461](#) Reestablishing the RLC entity when the 'Use special value of HE field' is changed to not configured Qualcomm Incorporated CR 25.331 (4246) - F REL-7RANImp-EnhState
- Wrong WI code, should be TEI7.
- "Other comment" still valid?
=> The CR is postponed
- [R2-104462](#) Reestablishing the RLC entity when the 'Use special value of HE field' is changed to not configured Qualcomm Incorporated CR 25.331 (4247) - A REL-8RANImp-EnhState
- Wrong WI code, should be TEI7.
- "Other comment" still valid?
- Difference with 4461 should be indicated in "other comments"
=> The CR is postponed
- [R2-104463](#) Reestablishing the RLC entity when the 'Use special value of HE field' is changed to not configured Qualcomm Incorporated CR 25.331 (4248) - A REL-9RANImp-EnhState
=> The CR is postponed
- [R2-104464](#) Reestablishing the RLC entity when the 'Use special value of HE field' is changed to not configured Qualcomm Incorporated CR 25.331 (4249) - A REL-10 RANImp-EnhState
=> The CR is postponed
- [R2-104721](#) When to discard RLC PDUs with special value HE field set Ericsson, ST-Ericsson CR
25.322 (0384) - F REL-7TEI7
- Qualcomm: how to change the release 7 implementation for UEs? Ericsson: this would be the same for QC solution
- QC: in QC solution the change is on the NW, the E/// CR is changing the release 7 UE behavior which isn't backward compatible.
- ST-E: recollect that previous discussion indicated other side can handle HE field. QC considers it's different from what was discussed. In E/// proposal the HE field configuration becomes meaningless as UE always has to accept it. E/// indicates the discussion is for retx, not for new transmissions. QC points out the CR doesn't make that distinction.
- ALU: if we want to avoid the reset we need to go with QC CR. Samsung: dangerous to mandate the UE to handle packets which aren't valid under the current configuration.
- ST-E: In QC's proposal there is a backward compabitility issue, a single sided re-establishment would trigger a reset. Nokia agrees with ST-E, single-sided re-establishment would become useless for flex to fixed pdu size change.
- Samsung: the single sided reestablishment is creating problems, it shouldn't be used.

- Ericsson: the QC approach would have a performance impact.
 - Chairman: Either solution proposed needs to be backward compatible.
 - NSN: what is the issue with UEs handling HE fields even when not configured? That would be the clearest way to solve the CR.
 - ST-E: this issue could be solved at the NW side, maybe it doesn't need a spec change.
 - E///: for the NW use case maybe that can be solved at NW side but the use case where UE discards packets will require some change that minimizes impact.
 - Nokia: for rel'7 the use case for UE doesn't exist because NW normally uses special HE field value with flex size.
- => Offline discussion. Qualcomm POC
=> No convergence offline.
=> The CR is postponed

[R2-104722](#) When to discard RLC PDUs with special value HE field set Ericsson, ST-Ericsson CR
25.322 (0385) - A REL-8TEI7
=> The CR is postponed

[R2-104723](#) When to discard RLC PDUs with special value HE field set Ericsson, ST-Ericsson CR
25.322 (0386) - A REL-9TEI7
=> The CR is postponed

[R2-104724](#) When to discard RLC PDUs with special value HE field set Ericsson, ST-Ericsson CR
25.322 (0387) - A REL-10 TEI7
=> withdrawn

[R2-104745](#) Editorial changes for MIMO and storing of E-RGCH information Alcatel-Lucent CR
25.331 (4302) - D REL-7TEI7
- WI code should be MIMO-L23 and RANimp-CPC
- HW: the HICH isn't a mistake, it's was intentional because both E-HCIH and E-RGCH need to be transmitted together.
- That change can be removed. We'll keep the 2 last changes in a rel'10 cat D CR.
=> Withdrawn

[R2-104746](#) Editorial changes for MIMO and storing of E-RGCH information Alcatel-Lucent CR
25.331 (4303) - A REL-8TEI7
=> Withdrawn

[R2-104747](#) Editorial changes for MIMO and storing of E-RGCH information Alcatel-Lucent CR
25.331 (4304) - A REL-9TEI7
=> Withdrawn

[R2-104748](#) Editorial changes for MIMO and storing of E-RGCH information Alcatel-Lucent CR
25.331 (4305) - A REL-10 TEI7
=> The CR is revised in [R2-105038](#)

[R2-105038](#) Editorial changes for MIMO and storing of E-RGCH information Alcatel-Lucent CR
25.331 4305 - D REL-10 TEI7
=> The CR is agreed

REL-8 RANimp-UplinkL2dataRates (RAN2):

[R2-104704](#) Editorial Corrections to 25.321 Qualcomm Incorporated CR 25.321 (0696) - D
REL-8RANimp-L2dataRates
- Wrong WI code; should be RANimp-UplinkL2dataRates
- Ericsson: is this needed? There is no need for the CR.
- CN box shouldn't be checked
- Consequences if not approved should be less severe
=> The CR is not agreed

[R2-104705](#) Editorial Corrections to 25.321 Qualcomm Incorporated CR 25.321 (0697) - A
REL-9RANimp-L2dataRates
- Wrong WI code; should be RANimp-UplinkL2dataRates
=> The CR is not agreed

REL-8 RInImp8-CsHspa (RAN2):

REL-8 RANimp-UplinkEnhState (RAN2):

- [R2-104333](#) Clarification on the use of timer T2 in Enhanced Uplink in CELL_FACH state and Idle mode for FDD Infineon Technologies CR 25.321 (0685) - F REL-8RANimp-UplinkEnhState
- The CR may need merging with [R2-104795](#).
 - The last change in figure of [R2-104795](#) is merged in this CR.
- => The CR is agreed in [R2-105039](#) => There is a collision, the CR is uploaded again in [R2-105102](#)
- [R2-104334](#) Clarification on the use of timer T2 in Enhanced Uplink in CELL_FACH state and Idle mode for FDD Infineon Technologies CR 25.321 (0686) - A REL-9RANimp-UplinkEnhState
- The CR may need merging with [R2-104797](#).
 - The last change in figure of [R2-104797](#) is merged in this CR.
- => The CR is agreed in [R2-105040](#) => There is a collision, the CR is uploaded again in [R2-105103](#)
- [R2-104344](#) Ambiguity related to variable HSPA_RNTI_STORED_CELL_PCH Broadcom Corporation Disc REL-8RANimp-UplinkEnhState
- => Not treated (company not present)
- [R2-104569](#) Wrong intention for else case in sub-clause 8.5.56 Infineon Technologies CR 25.331 (4264) - F REL-8RANimp-EnhState
- Reason why no rel'7 CR should be explained in "other comments"
 - Wrong WI code should be **RANimp-UplinkEnhState**
 - Nokia: original intention was the else corresponds to variable hspa-rnti-stored-cell-pch is set to true.
 - Ericsson shares with Nokia's understanding.
 - Panasonic indicates the branch on variable common-edh- set to true can be removed.
 - Offline discussion needed.
- => The CR is postponed
- [R2-104570](#) Wrong intention for else case in sub-clause 8.5.56 Infineon Technologies CR 25.331 (4265) - A REL-9RANimp-EnhState
- Tdoc number missing on coversheet
- => The CR is postponed
- [R2-104345](#) Triggering of absolute priority based reselection while common E-DCH allocated Panasonic CR 25.304 (0259) - F REL-8RANimp-UplinkEnhState
- Nokia: absolute priority reselection doesn't apply in cell-fach. DT: similar understanding that abs prior rules should apply. Panasonic: also for inter-freq case or also inter-rat?
 - ALU: was "shall" used in rel'9? Panasonic has no strong preference.
 - Ericsson: coversheet contains "draft". Hyperlinks need to be removed. RAN box needs to be removed.
 - Companies need to check offline if abs prio applies at all to cell-fach.
- => The CR is revised in [R2-105082](#)
- [R2-105082](#) Triggering of absolute priority based reselection while common E-DCH allocated Panasonic CR 25.304 0259 - F REL-8RANimp-UplinkEnhState
- Ericsson: section 5.2.6.1.4 isn't changed, can be removed in final version
 - Revision is now 1
- => With this change the CR is agreed in [R2-105100](#) r1
- [R2-104346](#) Triggering of absolute priority based reselection while common E-DCH allocated Panasonic CR 25.304 (0260) - A REL-9RANimp-UplinkEnhState
- => The CR is revised in [R2-105083](#)
- [R2-105083](#) Triggering of absolute priority based reselection while common E-DCH allocated Panasonic CR 25.304 0260 - A REL-9RANimp-UplinkEnhState
- Ericsson: section 5.2.6.1.4 isn't changed, can be removed in final version
 - Revision is now 1
- => With this change the CR is agreed in [R2-105101](#) r1
- [R2-104795](#) Corrections for Enhanced Uplink in CELL_FACH state and idle mode Nokia Corporation, Nokia Siemens Networks CR 25.321 (0699) - F REL-8RANimp-UplinkEnhState
- Some corrections collide with [R2-104333](#). May need merging
 - Ericsson: why is the procedural change needed? Nokia indicates that UE wouldn't be able to indicate eul process termination to RRC.

- Infineon: agree with principle but the way it's captured isn't so correct. If timer is 0 then it expires directly. Nokia wants to capture this separately because values 0 and infinity for timer need special treatment.
 - Ericsson: there may be impact in other parts of the spec where tb expiry is mentioned. We could also let the text as it is. Nokia understands this is the only place where this condition is needed. Ericsson points to other places where this may be needed
 - The last figure change 11.2.2A-2 is removed from this CR and merged into [R2-105039](#)
- => The CR is revised in [R2-105104](#)

[R2-105104](#) Corrections for Enhanced Uplink in CELL_FACH state and idle mode Nokia Corporation, Nokia Siemens Networks CR 25.321 0699 - F REL-8RANImp-UplinkEnhState

- move bracket to (re-)
- Infineon: "I" is missing in mac-I PDU.
- Samsung: change of order in first change. And change "at expiry of timer" to "if timer Tb expires".

=> With these changes the CR is agreed in [R2-105123](#) r1

[R2-104797](#) Corrections for Enhanced Uplink in CELL_FACH state and idle mode Nokia Corporation, Nokia Siemens Networks CR 25.321 (0700) - A REL-9RANImp-UplinkEnhState

- The last figure change 11.2.2A-2 is removed from this CR and merged into [R2-105040](#)
- => The CR is revised in [R2-105105](#)

[R2-105105](#) Corrections for Enhanced Uplink in CELL_FACH state and idle mode Nokia Corporation, Nokia Siemens Networks CR 25.321 0700 - A REL-9RANImp-UplinkEnhState

- move bracket to (re-)
- Infineon: "I" is missing in mac-I PDU.
- Samsung: change of order in first change. And change "at expiry of timer" to "if timer Tb expires".

=> With these changes the CR is agreed in [R2-105124](#) r1

REL-8 RANImp-EnhState1.28TDD (RAN2):

REL-8 HNB-supp (RAN2):

REL-8 RANImp-DCHSDPA (RAN1):

[R2-104681](#) Discrepancy in DC-HSDPA specification of RRC Signaling and Rx requirements Qualcomm Incorporated Disc REL-8RANImp-DCHSDPA

- Ericsson: this is under discussion as well in RAN4 and it would be good that RAN4 discusses the impact.
- Qualcomm asks that companies check with their RAN4 colleagues, some offline discussion seem to be leading to a modified RAN2 solution.
- Chairman: need to check with the RAN4 chairman when/if this will be treated in RAN4 and if it would be ok if RAN2 can make the decision on where is this solved.
- DT: this would mean for DC_HSDPA we re-introduce explicit partitioning just to allow to use the RAN4 tests.
- QC: result of offline discussion: there is more consensus towards a ran2 solution
- Ericsson: fine with having a RAN2 approach, need to check the CR.

=> Noted

[R2-104682](#) Explicit HARQ Memory partitioning for dual cell operation Qualcomm Incorporated CR 25.331 (4287) - C REL-8RANImp-DCHSDPA

- Incorrect release (10->8)

=> The CR is revised in [R2-105127](#)

[R2-105127](#) Explicit HARQ Memory partitioning for dual cell operation Qualcomm Incorporated CR 25.331 4287 - C REL-8RANImp-DCHSDPA

- Ericsson: for rel'8 the process restriction isn't removed. The coversheet can say: "Furthermore, for explicit memory partitioning, there is no restriction on Number of processes for dual cell operation."

HW: why do we divide by 6 instead of number of harq process configured by NW. This is to ensure implementations can cope with the introduction of explicit partitioning.

- No curly brackets

=> With the change in the coversheet and removal of curly brackets, the CR is agreed in [R2-105130](#) r1

[R2-104683](#) Explicit HARQ Memory partitioning for dual cell operation Qualcomm Incorporated CR 25.331 4288 - A REL-9RANImp-DCHSDPA

- Not available
 - The coversheet should say: "Furthermore, for explicit memory partitioning, there is no restriction on Number of processes for dual cell operation."
 - No curly brackets
- => With the change in the coversheet and removal of curly brackets, the CR is agreed in [R2-105131](#) r1

[R2-104684](#) Explicit HARQ Memory partitioning for dual cell operation Qualcomm Incorporated CR 25.331 4289 - A REL-10 RANimp-DCHSDPA

- The coversheet should say: "Furthermore, for explicit memory partitioning, there is no restriction on Number of processes for dual cell operation."
 - No curly brackets
- => With the change in the coversheet and removal of curly brackets, the CR is agreed in [R2-105132](#) R1

[R2-104684](#) Explicit HARQ Memory partitioning for dual cell operation Qualcomm Incorporated CR 25.331 (4289) - A REL-10 RANimp-DCHSDPA

[R2-105085](#) Correction of the DC-HSDPA procedures Qualcomm Incorporated CR 25.331 4323 - F REL-8RANimp-DCHSDPA

=> The CR is revised in [R2-105106](#)

[R2-105106](#) Correction of the DC-HSDPA procedures Qualcomm Incorporated CR 25.331 4323 1 F REL-8RANimp-DCHSDPA

- Cat should be F
 - Ericsson: need to indicate the dependency on the 4C CR and indicate the 4C CR Tdoc # in this CR
- => With those changes the CR is agreed in [R2-105117](#) r2

[R2-105086](#) Correction of the DC-HSDPA procedures Qualcomm Incorporated CR 25.331 4324 - A REL-9RANimp-DCHSDPA

- Cat should be A
 - Reference to 4C to be added, reference to R2-105106=>R2-105117
- => With these changes the CR is agreed in [R2-105118](#) r1

Note: There is no REL-10 cat.A CR related to R2-105118 as the REL-10 change will be merged in R2-105128 in order to avoid a clash of CRs

[R2-105087](#) Correction of the DC-HSDPA procedures Qualcomm Incorporated CR 25.331 4325 - A REL-10 RANimp-DCHSDPA

=> Withdrawn (see R2-105128 instead)

REL-8 RANimp-LCRCPC (RAN1):

REL-8 RANimp-DRX (RAN2):

REL-8 RANimp-HSPAVoIP (RAN2):

[R2-104801](#) Security procedures for intra-UTRAN SR-VCC Nokia Corporation, Nokia Siemens Networks CR 25.331 (4309) - F REL-8RANimp-HSPAVoIP

- Ericsson: agrees there are a few things missing in rel'8 and supports the intention of the CR. Not clear whether SR-VCC acronym can be used as is. ALU: we refer to SR-VCC a few times but it's not defined. That can be added in the definitions.
- HW: Is there a use case for updating security parameters during sr-vcc. Nokia indicates the change of PS to CS domain is a use case on its own depending on what security is supported in either domain.
- The definition needs to be added in a revision

=> The CR is revised in [R2-105041](#)

[R2-105041](#) Security procedures for intra-UTRAN SR-VCC Nokia Corporation, Nokia Siemens Networks CR 25.331 4309 - F REL-8RANimp-HSPAVoIP

=> The CR is agreed

[R2-104802](#) Security procedures for intra-UTRAN SR-VCC Nokia Corporation, Nokia Siemens Networks CR 25.331 (4310) - A REL-9RANimp-HSPAVoIP

=> The CR is revised in [R2-105042](#)

[R2-105042](#) Security procedures for intra-UTRAN SR-VCC Nokia Corporation, Nokia Siemens Networks CR 25.331 4310 - A REL-9RANimp-HSPAVoIP

=> The CR is agreed

[R2-104804](#) Security procedures for intra-UTRAN SR-VCC Nokia Corporation, Nokia Siemens Networks
CR 25.331 (4311) - A REL-10 RANimp-HSPVoIP

=> The CR is revised in [R2-105043](#)

[R2-105043](#) Security procedures for intra-UTRAN SR-VCC Nokia Corporation, Nokia Siemens Networks
CR 25.331 4311 - A REL-10 RANimp-HSPVoIP

- Track changes in coversheet need to be removed

=> With the change the CR is agreed in [R2-105099](#) r1

REL-8 RANimp-ANSS (RAN2):

REL-8 RANimp-HSDSCH (RAN2):

[R2-104317](#) Conditions to stop T314 and stop monitoring the target cell Broadcom Corporation Disc
REL-8RANimp-HSDSCH

=> Company not present. Tdoc not treated

[R2-104341](#) Correction to Enhanced serving cell change procedure Broadcom Corporation CR
25.331 (4209) - F REL-8RANimp-HSDSCH

=> Company not present. CRs not treated

[R2-104342](#) Correction to Enhanced serving cell change procedure Broadcom Corporation CR
25.331 (4210) - A REL-9RANimp-HSDSCH

=> Company not present. CRs not treated

[R2-104343](#) Correction to Enhanced serving cell change procedure Broadcom Corporation CR
25.331 (4211) - A REL-10 RANimp-HSDSCH

=> Company not present. CRs not treated

[R2-104347](#) Deletion of target cell preconfiguration for existing RL by ASU Panasonic CR 25.331
(4212) - F REL-8RANimp-HSDSCH

- Offline comment that there is no use case for this deletion.

- ALU: There is no ambiguity in the current spec, that would simply add an alternative for deletion.

=> The group agrees with alternative 2.

- HW: There can be a use case to release NB resources.

- Companies can check with their RAN3 colleagues if a use case may appear

- Panasonic wants to come back in the next meeting to clarify UE behavior in case ASU is received with existing RL and without setting target cell preconfiguration.

=> The CR is not agreed

[R2-104349](#) Deletion of target cell preconfiguration for existing RL by ASU Panasonic CR 25.331
(4213) - A REL-9RANimp-HSDSCH

=> The CR is not agreed

[R2-104350](#) Deletion of target cell preconfiguration for existing RL by ASU Panasonic CR 25.331
(4214) - A REL-10 RANimp-HSDSCH

=> The CR is not agreed

[R2-104571](#) Conditions when to stop monitoring target cell HS-SCCH Infineon Technologies CR
25.331 (4266) - F REL-8RANimp-HSDSCH

- Treat with [R2-104317](#)

- Rel'10 shadow?

- Nokia: agree with principle of CR but with editorial changes, would like to separate timer handling from monitoring in 2 separate statements.

- QC: a similar document from Broadcom has a more correct interpretation. UE shouldn't stop monitoring for any reconfig message.

- Infineon: spec already stops the timer in any reconfiguration.

- HW and Panasonic agree that Infineon's interpretation is correct.

- Samsung: the reconfig msg may not be changing the cell, anything else may happen and it's not a reason for stopping the monitoring of the cell.

- Infineon: We should not divert from the principle that configurations happen one after the other.

- QC: agree something needs to be changed in the spec to correct the behavior. But the correction should be aligned with Broadcom.
- Nokia: we need to stop monitoring because the reconfig can change the preconfig info.
- Companies need to check offline what was the original intention.

=> The CR is revised in [R2-105109](#)

[R2-105109](#) Conditions when to stop monitoring target cell HS-SCCH Infineon Technologies CR
25.331 4266 - F REL-8RANimp-HSDSCH

- QC: what is the difference with Broadcom CR? It's the alternate interpretation.
- => The CR is postponed

[R2-104572](#) Conditions when to stop monitoring target cell HS-SCCH Infineon Technologies CR
25.331 (4267) - A REL-9RANimp-HSDSCH

=> The CR is revised in [R2-105110](#)

[R2-105110](#) Conditions when to stop monitoring target cell HS-SCCH Infineon Technologies CR
25.331 4267 - A REL-9RANimp-HSDSCH

=> The CR is postponed

[R2-105111](#) Conditions when to stop monitoring target cell HS-SCCH Infineon Technologies CR
25.331 - - A REL-10 RANimp-HSDSCH

=> The CR is postponed (note: Wrong CR number 4324 was allocated to this CR (which was already used for R2-105086).)

REL-8 MBSFN-DOB (RAN1):

REL-8 RANimp-MIMOLCR (RAN1):

REL-8 ETWS:

REL-8 TEI8:

[R2-104367](#) Correction to deferred SIB11 reading (Rel-8) Huawei CR 25.331 (4219) - F
REL-8TEI8

- Nokia: change 1 is already covered in 8.5.31, why repeat it? ALU: the note was copied from 8.1.3.6 but isn't needed.
- It's already clear to UE vendors without the note.
- Nokia: maybe better to change the IE in the procedural in 8.1.1.6.3 rather than tabular because then it's not consistent with ASN.1 naming.
- Ericsson: if we need to change an IE name, let's ensure the tabular is aligned with ASN.1

=> The CR is revised in [R2-105044](#)

[R2-105044](#) Correction to deferred SIB11 reading (Rel-8) Huawei CR 25.331 4219 - F REL-8 TEI8

=> The CR is agreed

[R2-104368](#) Correction to deferred SIB11 reading (Rel-9) Huawei CR 25.331 (4220) - A
REL-9TEI8

=> The CR is revised in [R2-105045](#)

[R2-105045](#) Correction to deferred SIB11 reading (Rel-9) Huawei CR 25.331 4220 - A REL-9 TEI8

=> The CR is agreed

[R2-104369](#) Correction to deferred SIB11 reading (Rel-10) Huawei CR 25.331 (4221) - A
REL-10 TEI8

=> The CR is revised in [R2-105046](#)

[R2-105046](#) Correction to deferred SIB11 reading (Rel-10) Huawei CR 25.331 4221 - A REL-10 TEI8

=> The CR is agreed

[R2-104636](#) Support for different HS-SCCHs in consecutive TTIs in CELL_FACH Huawei Disc REL-7 RANimp-EnhState

- Wrong WI code and release, should be TEI8, REL-8
- Discuss with [R2-104487](#)
- ST-E: same understanding as HW, no impact in RAN2 specs. Support for the feature can be derived from UE supporting enh. CELL_FACH.

- QC: agree with HW's analysis.
=> We agree there is no RAN2 impact, we agree the feature applies to cell-fach.
- [R2-104487](#) [Draft] Reply LS on Support for different HS-SCCHs in contiguous TTIs in CELL_FACH
Qualcomm Incorporated LSout REL-8TEI8
 - Discuss with [R2-104636](#)
 - ST-E: re-wording of the last paragraph is needed
 - HW: actions to RAN3, we can remove the mention of cell-dch because it's already supported.
 => The LS is revised in [R2-105047](#)
- [R2-105047](#) [Draft] Reply LS on Support for different HS-SCCHs in contiguous TTIs in CELL_FACH
Qualcomm Incorporated LSout REL-8TEI8
 - => The LS is agreed in [R2-104941](#)
- [R2-104685](#) Editorial Corrections to 25.331 Qualcomm Incorporated CR 25.331 (4290) - D
REL-8TEI8
 - Nokia: what's the relevance to 4C-HSPDA? None.
 - Ericsson: the release in the coversheet is wrong.
 => CR R2-104685 is not agreed. We'll fix this as cat D in release 10, addressed in [R2-104687](#)
- [R2-104686](#) Editorial Corrections to 25.331 Qualcomm Incorporated CR 25.331 (4291) - D
REL-9TEI9
 - Moved from 9.4.2
 - Wrong WI code, should be TEI8
 - Shadow CR from [R2-104685](#) + new corrections: "other comments should indicate change between D/A CR"
 => CR R2-104686 is not agreed. We'll fix this as cat D in release 10, addressed in [R2-104687](#)
- [R2-104687](#) Editorial Corrections to 25.331 Qualcomm Incorporated CR 25.331 (4292) - D
REL-10 TEI10
 - Nokia: Reason for change needs to be relevant, changed to "Editorial corrections"
 => With this change the CR is agreed in [R2-105048](#)
- [R2-104707](#) Correction to default configuration #23 Nokia Siemens Networks, Nokia Corporation, NTT
DOCOMO CR 25.331 (4293) - F REL-8TEI8
 - Remove track changes from coversheet
 - HW: still some concern about id 7 which has been reserved for CCCH transmissions. HW suggests to use any value other than 7.
 - We can use value 6.
 => The CR is revised in [R2-105049](#)
- [R2-105049](#) Correction to default configuration #23 Nokia Siemens Networks, Nokia Corporation, NTT
DOCOMO CR 25.331 4293 - F REL-8TEI8
 - => The CR is agreed
- [R2-104708](#) Correction to default configuration #23 Nokia Siemens Networks, Nokia Corporation, NTT
DOCOMO CR 25.331 (4294) - A REL-9TEI8
 - => The CR is revised in [R2-105050](#)
- [R2-105050](#) Correction to default configuration #23 Nokia Siemens Networks, Nokia Corporation, NTT
DOCOMO CR 25.331 4294 - A REL-9TEI8
 - => The CR is agreed
- [R2-104709](#) Correction to default configuration #23 Nokia Siemens Networks, Nokia Corporation, NTT
DOCOMO CR 25.331 (4295) - A REL-10 TEI8
 - => The CR is revised in [R2-105051](#)
- [R2-105051](#) Correction to default configuration #23 Nokia Siemens Networks, Nokia Corporation, NTT
DOCOMO CR 25.331 4295 - A REL-10 TEI8
 - => The CR is agreed
- [R2-104768](#) URA identity handling Research In Motion UK Limited CR 25.331 (4306) - F
REL-8TEI8
 - Nokia: agree this is a valid issue in the spec but it doesn't solve the issue for legacy UEs. If instead the NW provides the Ura-id to UE then there won't be an issue. RIM thinks that doesn't guarantee to solve the issue because NW won't implement at 100%. It's also not guaranteed what UEs would do.

- Nokia assumes that if use of ura is recent, NWs can fix it. Nokia thinks NWs would need to include it at URA boundaries.
- QC: CR is not needed. Panasonic also doesn't think the CR is needed, NW shouldn't deploy URA without knowledge of ura-ids. Panasonic thinks that if UE is around URA boundary then NW should always include ura id to UE.
- RIM: should some text be added to semantics to force NW to include the ura id?
- NSN: would like to see a proposal but limiting NW implementation is a concern.

=> The CR is postponed to the next meeting

[R2-104811](#) URA identity handling Research In Motion UK Limited CR 25.331 (4312) - A
REL-9TEI8
- File corrupted

=> The CR is postponed to the next meeting

[R2-104812](#) URA identity handling Research In Motion UK Limited CR 25.331 (4313) - A
REL-10 TEI8

=> The CR is postponed to the next meeting

9 UTRA Release 9

9.1 DC-HSDPA with MIMO (RP-090332)

(RANimp-DC_MIMO, leading WG: RAN1, started: March 09, closed: Dec. 09, WID: RP-090332)

[R2-104402](#) Clarification on the code rate restriction in HS-DSCH UE Categories 25 and 27 Alcatel-Lucent, Alcatel-Lucent Shanghai Bell CR 25.306 (0273) - F REL-9RANimp-DC_MIMO
- We keep the following changes: table rewording and the text added for cat 25/27.

=> The CR is revised in [R2-105056](#)

[R2-105056](#) Clarification on the code rate restriction in HS-DSCH UE Categories 25 and 27 Alcatel-Lucent, Alcatel-Lucent Shanghai Bell CR 25.306 0273 - F REL-9RANimp-DC_MIMO

=> The CR is agreed

[R2-105054](#) Precoding weight set restriction settings for secondary cell Ericsson, ST-Ericsson, Vodafone CR 25.331 4319 - F REL-9RANimp-DC_MIMO

- Nokia: How can an operator configure 1 carrier with MIMO and other without? Does the scenario work? Ericsson agrees the scenario won't be possible but considers the scenario isn't possible.
- ZTE: need to check if having full flexibility of precoding restrictions is necessary. Also has concerns with giving precedence of secondary over primary.
- HW: There is a use case where MIMO is configured on secondary only and then the precoding won't apply. HW considers having full flexibility is necessary, that would require ASN.1 change.
- VDF: would prefer a clean solution in rel'9. Could live with less flexibility in rel'9.
- ALU: either way there would be RAN3 impact? For NB to know which carrier benefits from the pre-coding restrictions.
- Nokia: prefers to have independent IE between rel'9 and rel'10 otherwise procedure would be difficult to write. Ericsson: is a possibility to have a rel'10 solution early implementable (in rel'9). Nokia thinks that would be simpler.
- HW: also prefers to have clean solution with rel'9 NCE, and a rel'10 regular CR. VDF: why not using a CE in release 9. Probably need F/A and F?
- That would be a proposal for the next meeting.
- QC: is there any impact on 4C-HSDPA? Not if it's for the next meeting.

=> We agree to have a solution with full flexibility.

=> The CR is postponed

[R2-105055](#) Precoding weight set restriction settings for secondary cell Ericsson, ST-Ericsson, Vodafone CR 25.331 4320 - F REL-10 RANimp-DC_MIMO

=> The CR is postponed

9.2 DC-HSUPA (RP-090014)

(RANimp-DC_HSUPA, leading WG: RAN1, started: March 09, closed: March 10, WID: RP-090014)

9.2.1 In principle agreed CRs

- [R2-104247](#) Clarification of primary uplink frequency and secondary uplink frequency ZTE CR 25.321
0678 - D REL-9RANimp-DC_HSUPA
=> The CR is agreed
- [R2-104248](#) Clarification on the DTX operation for DC-HSUPA Huawei CR 25.321 0679 - F
REL-9RANimp-DC_HSUPA
=> The CR is agreed
- [R2-104261](#) Clarification of primary uplink frequency and secondary uplink frequency ZTE CR 25.331
4201 - D REL-9RANimp-DC_HSUPA
=> The CR is agreed
- [R2-104262](#) Clarification of primary uplink frequency and secondary uplink frequency ZTE CR 25.331
4202 - A REL-10 RANimp-DC_HSUPA
=> The CR is agreed

9.2.2 Others

- [R2-104478](#) Status of the secondary carrier upon anchor and secondary switch Qualcomm Incorporated
Disc REL-9RANimp-DC_HSUPA
- Not available
=> Withdrawn
- [R2-104652](#) State of the secondary uplink frequency in case of hard handover Huawei Disc ? - - ?
REL-9RANimp-DC_HSUPA
=> Tdoc is noted. We agree with the proposal
- [R2-104655](#) Correction to the state of the secondary uplink frequency in case of hard handover Huawei
CR 25.331 (4285) - F REL-9RANimp-DC_HSUPA
- NSN: shouldn't we also set the secondary edch cell transmission variable to false? That is covered in 8.5.58 if appropriate. ITD: the intention isn't to set the variable to false but only deactivate the carrier.
- Ericsson: This text can be moved in a different subclause where all the de-activation scenarios are covered.
=> The CR is revised in [R2-105057](#)
- [R2-105057](#) Correction to the state of the secondary uplink frequency in case of hard handover Huawei
CR 25.331 4285 - F REL-9RANimp-DC_HSUPA
- Consequences if not approved can be changed to say UE will have to keep secondary carrier activated in case of HHO which isn't the spec intention.
- QC: better to make this text already forward compatible to >2 DL carriers
- Nokia: this scenario doesn't cover intra-freq HHO for primary carrier.
- Nokia: there are impacts on 8.3.5 as well.
=> With this change the CR is agreed in [R2-105125](#) R1
- [R2-104656](#) Correction to the state of the secondary uplink frequency in case of hard handover Huawei
CR 25.331 (4286) - A REL-10 RANimp-DC_HSUPA
=> The CR is revised in [R2-105058](#)
- [R2-105058](#) Correction to the state of the secondary uplink frequency in case of hard handover Huawei
CR 25.331 4286 - A REL-10 RANimp-DC_HSUPA
- Consequences if not approved can be changed to say UE will have to keep secondary carrier activated in case of HHO which isn't the spec intention.
=> With the change in the coversheet the CR is agreed in [R2-105126](#) r1

9.3 Home-NB enhancements (RP-091392)

(EHNB-RAN2, leading WG: RAN2, started: March 09, closed: March 10, WID: RP-091392)

9.3.1 In principle agreed CRs

Depending on results of email discussion [70B#01]

9.3.2 Other

- [R2-104522](#) Update of virtual active set handling for inter-frequency CSG measurements Nokia Corporation, Nokia Siemens Networks, Ericsson, ST-Ericsson CR 25.331 (4258) - C
REL-9EHNB-RAN2
=> The CR is agreed in [R2-105059](#)
- [R2-104523](#) Update of virtual active set handling for inter-frequency CSG measurements Nokia Corporation, Nokia Siemens Networks, Ericsson, ST-Ericsson CR 25.331 (4259) - A
REL-10 EHNB-RAN2
=> The CR is agreed in [R2-105060](#)

9.4 TEI9

9.4.1 In principle agreed CRs

- [R2-104249](#) Clarification to the CELL_DCH measurement occasion in MAC for 1.28Mcps TDD ZTE CR 25.321 0680 - F REL-9TEI9
=> The CR is agreed

9.4.2 Other

- [R2-104371](#) Pre-redirection info setting after the redirection/CSFB from E-UTRA NTT DOCOMO, INC. CR 25.331 (4222) - C REL-9TEI9
- Panasonic: ping pong issue also applies to rel'8. Second issue where UE cannot be configured in cell-fach is also addressed. It would be preferable to separate how to solve both issues.
- Nokia: agree with Panasonic the solution to the first issue could apply to rel'8. However setting both les to false to solve second issue would impact rel'8 because that isn't understood in rel'8. We could separate both issues.
- ZTE: Second part related to sys info in UE can be sorted out at RNC.
- We will address the ping pong issue as proposed by DCM. We can have a rel'9 CR early implementable with magic sentence.
=> The CR is revised to address ping pong issue only in [R2-105061](#)
- [R2-105061](#) Pre-redirection info setting after the redirection/CSFB from E-UTRA NTT DOCOMO, INC. CR 25.331 4222 - C REL-9TEI9
=> The CR is agreed
- [R2-104372](#) Pre-redirection info setting after the redirection/CSFB from E-UTRA NTT DOCOMO, INC. CR 25.331 (4223) - C REL-10 TEI9
- Cat should be A
=> The CR is revised to address ping pong issue only in [R2-105062](#)
- What to do about the second issue? Nokia thinks that can be solved in a backwards compatible manner. This can be seen in [R2-105074](#)
- [R2-105062](#) Pre-redirection info setting after the redirection/CSFB from E-UTRA NTT DOCOMO, INC. CR 25.331 4223 - A REL-10 TEI9
=> The CR is agreed
- [R2-105074](#) Introduction of system information container indication Nokia, NSN CR 25.331 4321 - C REL-9TEI9
=> The CR is agreed
- [R2-105075](#) Introduction of system information container indication Nokia, NSN CR 25.331 4322 - A REL-10 TEI9
=> The CR is agreed

- [R2-104587](#) Introduction of RF band indicator in the RRC Connection Request for 1.28Mcps TDD ZTE
CR 25.331 (4276) - F REL-9TEI9
- Change curly bracket to straight bracket on first line of change
- 13.4.xx: note should say "1.28 Mcps TDD"
- After offline discussions, it was agreed to address in TEI10.
=> revised in R2-104958
- R2-104958 Introduction of RF band indicator in the RRC Connection Request for 1.28Mcps TDD ZTE
CR 25.331 4276 - F REL-9TEI9
=> Withdrawn
- [R2-104588](#) Introduction of RF band indicator in the RRC Connection Request for 1.28Mcps TDD ZTE
CR 25.331 (4277) - A REL-10 TEI9
revised in R2-104959
- R2-104959 Introduction of RF band indicator in the RRC Connection Request for 1.28Mcps TDD ZTE
CR 25.331 4277 - A REL-10 TEI9
=> Withdrawn
- [R2-104521](#) Correction to EUTRA Qqualmin handling in reselection from UTRA Nokia Corporation, Nokia Siemens Networks CR 25.304 (0261) - C REL-9TEI9, LTE-L23
- HW: agree with intention of CR. Why did we introduce Squal for reselection to EUTRA?
Not clear we need to define Squal for EUTRA
=> The CR is agreed in [R2-105091](#)

9.5 Other UTRA Rel-9 WIs

(RANimp-TxAA_nonMIMO; leading WG: RAN1, started: March 08, closed: Dec. 09, WID: RP-090013)
No contributions.

(RANimp-MultiBand_DC_HSDPA; leading WG: RAN4, started: March 08, closed: Dec. 09, WID: RP-090973)
No contributions.

9.5.1 In principle agreed CRs

- [R2-104265](#) Correction to MIMO_STATUS and SECONDARY_CELL_MIMO_STATUS setting for Single Stream MIMO Nokia Siemens Networks, Nokia Corporation CR 25.331 4205 - F
REL-9RANimp-TxAA_nonMIMO
- Previous comment: Remove track changes from coversheet.
=> with this change the CR is agreed in [R2-105069](#) R1
- [R2-104266](#) Correction to MIMO_STATUS and SECONDARY_CELL_MIMO_STATUS setting for Single Stream MIMO Nokia Siemens Networks, Nokia Corporation CR 25.331 4206 - A
REL-10 RANimp-TxAA_nonMIMO
=> The CR is agreed

9.5.2 Other

- [R2-104495](#) Stopping timer T313 on change of serving HS-DSCH cell Samsung CR 25.331 (4252)
- F REL-9RANimp-MultiBand_DC_HSDPA
- Conclusion from last meeting: not needed in rel'9, can be considered in rel'10 if significant support is found.
=> The CR is not agreed
- [R2-104496](#) Stopping timer T313 on change of serving HS-DSCH cell Samsung CR 25.331 (4253)
- A REL-10 RANimp-MultiBand_DC_HSDPA
=> The CR is not agreed

10 UTRA Release 10

10.1 WI: LCR TDD MC-HSUPA (RP-090990)

(TDD_MC_HSUPA; leading WG: RAN1, started: Sep. 09, target: Dec. 10, WID: RP-090990)

10.1.1 CRs

Including CRs to stage 2, analysis on stage 3 impact, proposal on RRC tabular

- [R2-104589](#) Introduction of MC-HSUPA for 1.28Mcps TDD without ASN.1 ZTE CR 25.331 (4278)
 - B REL-10 TDD_MC_HSUPA
 => The CR is revised in [R2-105067](#)
- [R2-105067](#) Introduction of MC-HSUPA for 1.28Mcps TDD without ASN.1 ZTE CR 25.331 (4278)
 - B REL-10 TDD_MC_HSUPA
 - ZTE: issues about inter-intra measurement is not new, this would impact rel'7/8 and would need to be addressed there as well.
 - CATT: for MC-HSUPA the reference freq should be introduced.
 - 8.6.6.1: first change impacts FDD, needs to be removed.
 - In order to address MC-HSDPA issue a new CR can be provided to rel'7.
 - 8.6.6.xx: 9 bits -> 14 bits
 - 10.3.6.xx: version should only be rel'10.
 - CATT: add a third choice to remove. ZTE indicates this can be discussed offline.
 - TD-Tech: 10.3.6.xxx 9bits->14bits.
 - Chairman: number of different MC capabilities is now 24. That is a lot. CATT indicates some combinations won't be allowed. ZTE also indicates the categories also include the number of underlying carriers.
 - Any new agreement can be captured in a revision that will be submitted at the next meeting
 => The CR is postponed
- [R2-104595](#) Introduction of partial radio awareness for MC-HSUPA capable UEs CATT CR 25.322 (0383) - B REL-10 TDD_MC_HSUPA
 - Chairman: title should be more generic: introduction of LCR TDD MC-HSUPA in 25.322
 - Chairman: release should be 10.
 => revised in R2-105076
- R2-105076 Introduction of LCR TDD MC-HSUPA in 25.322 CATT CR 25.322 0383 - B REL-10 TDD_MC_HSUPA
 => The CR is not available and therefore withdrawn, topic is postponed
- [R2-104712](#) Draft CR on Introduction of MC-HSUPA for 1.28Mcps TDD TD Tech CR 25.321 (0698)
 - B REL-10 TDD_MC_HSUPA
 => The CR is revised in [R2-105066](#)
- [R2-105066](#) Draft CR on Introduction of MC-HSUPA for 1.28Mcps TDD TD Tech CR 25.321 (0698)
 - B REL-10 TDD_MC_HSUPA
 - CATT: version should be set to current version.
 - CATT: some agreements don't need to be mentioned (Reference frequency for intra/inter-frequency definition needs to be introduced in MC-HSUPA.)
 - CATT: 25.321 should be deleted from other impacted specs.
 - 4.2.4.8: multi E-DCH carriers needs to be aligned with RRC spec: We'll call it "Multi carrier E-DCH transmission" in all specs.
 - Chairman: CR will be resubmitted at next meeting with new agreements, small comments can be made offline to TD-Tech to take into account at next meeting.
 - Chairman: in 9.2.6.4.3, how multi carrier UE know which formula to use. CATT indicates 2 categories are signaled to NW, SC category and MC category.
 - the comments and additional agreements will be incorporated in a new submission at the next meeting.
 => The CR is postponed

10.1.2 Scheduling

10.1.2.1 SI format

Do we need to add a new extended SI format to report SNPL of other carriers?

[R2-104577](#) Structure of Scheduling Information for MC-HSUPA New Postcom Disc REL-10
TDD_MC_HSUPA

=> Not treated

[R2-104700](#) SI format on the E-PUCH TD Tech Disc REL-10 TDD_MC_HSUPA

=> Not treated

[R2-104713](#) Further discussion on T-SI and SI structure for 1.28M TDD MC-HSUPA ZTE Disc REL-10
TDD_MC_HSUPA

=> Not treated

Agreement:

- A new SI format will be created where SNPL for every carrier can be indicated with a bitmap as per scheme 2 of [R2-104713](#)
- Following restrictions are used:
 - If there is no room for extended format, legacy SI format is used
 - If configured carrier belongs to 1 SNPL group, legacy SI is used and reports SNPL of group
 - If configured carriers belong to >1 SNPL group, extended SI is used and bitmap mapping corresponds to lower UARFCN.
 - For triggered SI, the extended format is used, if other restrictions are satisfied.
- T-SI agreements
 - Only 1 T-SI per UE

10.1.2.2 SI triggers

For periodic triggers, which triggers are re-used from single-carrier mode, are new ones needed, are triggering conditions per carrier or per UE?

[R2-104598](#) Further discussion on SI format and T-SI in MC-HSUPA CATT Disc REL-10
TDD_MC_HSUPA

=> Not treated

10.1.2.3 Other issues related to scheduling

No contributions.

10.1.3 E-TFC selection

Details on how to perform E-TFC selection, how to allocate power to different channels, how to allocate power between the different carriers

[R2-104597](#) Discussion on E-TFC selection in MC-HSUPA CATT Disc REL-10 TDD_MC_HSUPA

=> Not treated

[R2-104706](#) E-TFC selection for LCR TDD MC-HSUPA TD Tech Disc REL-10 TDD_MC_HSUPA

=> Not treated

[R2-104714](#) Discussion on E-TFC selection principles for 1.28M TDD MC-HSUPAZTE Disc
REL-10 TDD_MC_HSUPA

=> Not treated

Open issues:

- How to allocate power to the different E-PUCHs (and EUCCH will follow existing rules) to guarantee correct transmission, corresponding algorithm (e.g. as proposed in [R2-104597](#))(if specified)
 - How to allocate data to different E-PUCHs (with which priority)
- Way forward for next meeting:
- List different alternatives, simple majority rule.

10.1.4 Configuration

Including UE categories, common or carrier specific parameters

[R2-104596](#) Consideration on MC-HSUPA UE capability CATT Disc REL-10 TDD_MC_HSUPA

- Proposal 1: Agreed.
- Proposal 3: Agreed

Proposal 4: companies need to agree on the assumptions (RTT, window sizes)

[R2-104927](#) Discussion on UE physical categories for TDD MC-HSUPA TD Tech Disc REL-10
TDD_MC_HSUPA

- Late
- Proposal 2: one category is missing with 4 timeslots. Rest of table 1 of [R2-104927](#) is agreed

10.1.5 Others

[R2-104599](#) Discussion on measurement occasion in MC-HSUPA CATT Disc REL-10 TDD_MC_HSUPA

- TD-Tech: for TDD, adding adjacent frequency configuration isn't needed. UE will know which frequency will be used to make the measurement.
- => Noted

10.2 WI: 4C-HSDPA (RP-091438)

(4C_HSDPA-Core; leading WG: RAN1, started: Dec. 09, target: Dec. 10, WID: RP-091438)

10.2.1 CRs

Including CRs to stage 2 and 3

=> *Including email outcome for [70b#10] - UMTS: RRC CR incorporating procedural text of 4C-HSDPA (Qualcomm)*

Correction to stage 2:

[R2-104338](#) Update of DC-HSUPA stage 2 description Infineon Technologies CR 25.319 (0072) -
F REL-10 4C_HSDPA-Core

- VDF: 4C also means 3C operation; that's misleading. Infineon: that is the accepted terminology. VDF doesn't like this terminology. Operation with DC-HSUPA: agreement from last meeting how association is done, it's guaranteed that with this mapping both UL carriers will be on adjacent frequencies.
- Chairman: Title need to mention this is due to 4C agreements.
- NSN: We could extend the CR to clarify the modified sentence in first paragraph of 19.
- => The CR is agreed in [R2-105063](#)

Introduction in 25.321

[R2-104250](#) Introduction of 4C-HSDPA in 25.321 Huawei CR 25.321 0681 - B REL-10
4C_HSDPA-Core

=> The CR is agreed.

Introduction in 25.306

[R2-104740](#) Introduction of 4C-HSDPA categories Nokia Corporation, Nokia Siemens Networks CR
25.306 (0275) - B REL-10 4C_HSDPA-Core

- HW: Would prefer to define a new table 5.1a instead of extending existing one. Nokia not keen on separating the tables, that would have impact on other specs as well.
- Ericsson: aggregated carriers is a new terminology...
- Ericsson: "MIMO is configured" -> "MIMO can be configured"
- Ericsson: Need to verify the computation. QC agrees.
- Chairman: new buffer value exist in RRC? Ericsson raised this point in email discussion, this still needs to be added in RRC spec.
- ALU: Column 9 collides with agreed CR. That needs to be indicated in the "other comments" in this CR.
- QC: Addition of MAC-ehs in table 5.1b is not really part of 4C-HSDPA, that would be a different CR.

- Ericsson: We need to have a baseline agreement on the buffer granularity as soon as possible because CR needs to be agreed by next week.
- VDF: would be good to align the wording in the different columns. That can be handled with other comments on column heading.

=> The CR is revised in [R2-105064](#)

[R2-105064](#) Introduction of 4C-HSDPA categories Nokia Corporation, Nokia Siemens Networks CR 25.306 0275 - B REL-10 4C_HSDPA-Core

=> The CR is deferred to email approval [71#05]

Introduction in 25.302

[R2-104390](#) Introduction of 4C-HSDPA for FDD Infineon Technologies CR 25.302 (0202) - B REL-10 4C_HSDPA-Core

- Ericsson: no time to check. ALU: agree more time to check.
 - Email agreement by Thursday of next week to check the CR.
- => Postponed to email agreement [71#06].

Introduction in 25.331

[R2-104474](#) Report of email discussion [70b#10] on UMTS: RRC CR incorporating procedural text of 4C-HSDPA Qualcomm Incorporated Disc REL-10 4C_HSDPA-Core

- Proposal 1:
- Ericsson: current signaling is clear enough, why need a change? NSN agrees the signaling is clear but it would be good if it's more robust.
- QC: RAN4 classification of band combinations isn't very clear. Ericsson: the RAN4 way of indicating is from rel'9? QC CR in RAN4 is rel'10 because there is no impact in rel'9.
- HW: prefer not to have the clarification in RAN2 CR.
- VDF: what does (2,1) mean? Only adjacent? Non adjacent would mean that signaling needs to be changed.

- => We conditionally agree on proposal 1, condition is on whether RAN4 agrees with QC CR

- Proposal 2:

- => We agree on proposal 2

- Proposal 3:
- NSN: ok with the proposed text.
- Ericsson: How much of that definition is needed?

- => Text in 3.1 agreed without the last part: otherwise and for the 2nd and 3rd secondary serving HS-DSCH cells, the RRC Layer defines the numbering

- Proposal 7/11:
- Treat with related documents
- Proposal 9:
- Ericsson and NSN want to make sure the text in 2nd paragraph of 8.5.6x is clear for UE vendors. Re-wording can be done to explicitly indicate what absence of list means.
- => Qualcomm to propose text handling this issue
- Proposal 12:
- QC: Goal is to separate the actions in 2 sets, one set where it applies once for the variable, another set applies to each entry in the variable
- The text will require some rewording
- Ericsson: need to ensure that the set of actions to be performed once is clearly indicated as being done once.

- => Text needs to be clarified

- Proposal 15:

- => We modify the sentence in 8.5.57 to say
 - "1> if the IE "Secondary cell MIMO parameters" is not included in the IE "Downlink secondary cell info FDD" or in the IE "Additional Downlink secondary cell info FDD"

- Proposal 16:
- Ericsson: moving this text around from 8.6 section to 8.5 section. QC: this is done by reference in other parts of the spec.
- NSN: would like to avoid duplication to ensure procedural text is in one place.
- HW: should we update the text in section 8.6 instead?

- => We need to see a proposal on extending 8.6

- Proposal 17:

- Ericsson: it needs to be clear that the actions to memory partitioning need
- ZTE: what category should UE use when 2 carriers are configured with MIMO on dual band?

=> The wording on when to use category extension 3 will need to be updated to cover this case.

- => Solved with solved with 2.12 resolution
- Proposal 18:
- Can we do that without normative text.

=> We agree to keep legacy method without normative text, if the need arises in the future that can be revisited

- Proposal 21:
- Linked to discussion on RLC AM buffer size. Need to come back.
- Proposal 22:

=> extend 8.5.44 to cover extensions 4 and 5.

- Proposal 23:
- QC: nothing was added to CPC when DC was added. We can continue with the same assumption

=> Nothing is added to CPC

- Proposal 24:
- VDF wants to separate baseband from RF support, the current text mixes everything and that could be a problem going forward. That was a long discussion, can be handled offline.

=> NSN comment to be addressed offline and added to revision: we can add "in the same band" to "operation on 3 4 cells"

- Proposal 25:
- HW: Why use "a1"/"a2" rather than integers? Ericsson pointed to an ASN.1 convention for enumerated. That could be changed to more explicit names; e.g. additional1/additional2

=> We keep the current naming for now, that can be easily improved later.

[R2-105084](#) Way forward on 4C-HSDPA open issues Qualcomm Incorporated disc -
REL-10 4C_HSDPA-Core
=> Not treated

[R2-104475](#) Introduction of 4C-HSDPA in 25.331 Qualcomm Incorporated Disc REL-10
4C_HSDPA-Core
noted

[R2-104476](#) Introduction of 4C-HSDPA in 25.331 Qualcomm Incorporated CR 25.331 (4251) - B
REL-10 4C_HSDPA-Core

- The CR is revised in [R2-105070](#)

[R2-105070](#) Introduction of 4C-HSDPA in 25.331 Qualcomm Incorporated CR 25.331 4251 - B
REL-10 4C_HSDPA-Core

- Samsung: why keep 1700/2200 in the buffer size? That can be decided by the group.
- Ericsson: still some concern on the removal of "adjacent"
- Ericsson: in 8.1.6.2, if we remove the first "adjacent" we would create a new type of UE that only supports DC+MIMO and DB.

=> Agreement: we do not create a new 4C UE capability in rel'10 where:

-UE does not support any of the 4C related categories and UE supports DB simultaneously with MIMO

=> Whether such UE capability is created can be discussed within TEI10 (or new WI)

=> We agree to remove the first "adjacent"

- Ericsson: other CRs still need to be merged
- The other CRs will have to be merged in an update

=> The CR is deferred to email approval

-Deadline Thursday September 2nd

-Final Tdoc to be provided in [R2-105128](#) R1

[R2-104717](#) Introduction of 4C-HSDPA band combinations list Nokia Siemens Networks, Nokia CR ?
- - ? REL-10 4C_HSDPA-Core
=> Not treated

10.2.2 Open issues

Including measurements capability in single-band, dual-band, interaction with DC-HSUPA

Band combination signaling (to discuss with [R2-104476](#))

[R2-104296](#) More Considerations about Band Combination Signalling for 4C-HSDPA ZTE ?

REL-10 4C_HSDPA-Core

- QC: How can 1,3 be added to the table later on? That isn't forward compatible.
 - Feedback on either proposal: ALU: scalability remains an issue with either proposal.
- => Noted

[R2-104716](#) Band/carrier combination signaling for 4C-HSDPA Nokia Siemens Networks, Nokia Disc
REL-10 4C_HSDPA-Core

- QC: How is this proposal improving 4C-HSDPA WI? NSN: it's more readable and has more forward compatibility to 6/8 carriers.
 - VDF: will 2 bands with 4 carriers ever be used? NSN: there can be a use case in the future.
 - This forward compatibility is interesting if it can be done for band combinations as well.
 - QC: readability is subjective. Expendability isn't a priority of this WI; how can we be sure the proposal addresses the future scenarios. NSN: there is still some benefit.
 - No company indicates support.
 - ZTE: Justification for QC proposal is based on (1,3)(3,1) doesn't imply (2,2) support, is that sorted out in RAN4.
- => Noted

[R2-104799](#) On the configuration of 4C Ericsson, ST-EricssonDisc REL-10 4C_HSDPA-Core
=> Noted

[R2-104715](#) Further clarifications for the secondary carrier configurations Nokia Siemens Networks, Nokia Disc
REL-10 4C_HSDPA-Core

- ZTE: supports the proposal on explicit configuration by Ericsson. ZTE asks what is the issue with leaving the ID gaps?
- Ericsson: There are gaps in the signaling and no gaps in L1. The only issue is what happens between UE RRC and L1 and how should the squeezing be handled. NSN then doesn't see the difference between explicit and implicit schemes.
- QC clarifies the re-numbering needs to be specified for NW and UE to be in sync to know to which carrier a "continue" command applies.

=> We take a working assumption that what is captured in the CR is appropriate.

- NSN: what about proposal 4?
- QC: F3 in first case (F1-F2-F3 and F2 is removed) will be re-initialised. In second case, F3 will be reinitialised. In both cases, the carriers will be re-initialised because the number of configured carriers change and implicit partitioning has to be performed again.

=> The common understanding is that for both cases the UE will re-initialize all frequencies.

- on understand how the numbering of secondary carriers works in the CR.

UE categories

[R2-104339](#) UE category dependencies for 4C-HSDPA Ericsson, ST-EricssonDisc REL-10
4C_HSDPA-Core

- Nokia: should we have rel'9 dependencies as well? That can be considered.
 - HW: prefer not to include those dependencies as it depends on UE implementation. HW doesn't these dependencies help much the NW. QC agrees with the principle. Ericsson indicates there is operator support for these types of dependencies.
 - ZTE supports keeping the dependencies. ALU supports the proposal.
- => Tdoc is noted. We agree with the proposal.

[R2-104340](#) Addition of dependency between 4C with MIMO UE category and 3C with MIMO UE category
Ericsson, ST-EricssonCR 25.331 (4208) - F REL-10 4C_HSDPA-Core

- Nokia to check if 25.306 is impacted.
- => The principle of the CR is agreed and will be merged in the revision of [R2-105070](#).

Search/Measurement Capability

- [R2-104409](#) Further Discussion on Downlink Radio Link Failure in 4C-HSDPA Alcatel-Lucent Shanghai Bell Disc REL-10 4C_HSDPA-Core
- Nokia: if L1 is out of sync, UE disables tx so how can UE transmit the warning? ALU indicates UE turns on the transmitter and can use some open loop mechanism. VDF asks what is different with today? UE would have to perform RACH. We could also improve requirements for finding a serving cell after RLF.
 - Relation with 4C: more chance to fall back to a good carrier if more are configured.
 - NSN: was this discussed in RAN1? And what was the conclusion? Proposal was not exactly the same.
- => Noted
- [R2-104477](#) Signaling the UE search capability in 4C-HSDPA Qualcomm Incorporated Disc REL-10 4C_HSDPA-Core
- HW: How to interpret the rel'8/9 flags apply in case UE is configured in 3+1 in 2 bands. QC indicates rel'9 flag means UE can measure on either of configured carriers. QC agrees the text would need to be updated to capture this, but UE will be able to measure on only 1 additional carrier.
 - Ericsson: Supports principle of proposal. Why is it that if DC-HSUPA is configured, the second inter-frequency measurement is consumed? QC indicates the processing of the searcher would be used no matter if the carrier is inter or intra freq. Similar assumption is made in DC-HSUPA.
 - Ericsson: if rel'9 UE supports DB and rel'9 flag and DC-HSUPA? If DC-HSUPA is configured then the rel'9 flag is used. Did we capture this anywhere? QC indicates it's clear in 331.
- => Noted
- [R2-104635](#) Signaling the UE search capability in 4C-HSDPA Qualcomm Incorporated CR 25.331 (4280) - B REL-10 4C_HSDPA-Core
- Ericsson: Where is ASN.1? These capabilities don't apply to inter-RAT. IE could be named "additional" instead of "enhanced".
 - QC: ASN.1 will be provided in a revision.
 - HW: no impact on rel'8/9 flags? That isn't the intention of the CR.
 - VDF: tabular mention of additional is confusing. QC: this means additional to the anchor.
 - Nokia: This has impact on 25.306. This needs to be addressed in revision of 25.306. QC will provide some wording.
- => The CR is revised in [R2-105071](#)
- [R2-105071](#) Signaling the UE search capability in 4C-HSDPA Qualcomm Incorporated CR 25.331 (4280) - B REL-10 4C_HSDPA-Core
- NSN: still needs to incorporate the comment to clarify the "additional" term
 - NSN: the CR doesn't exactly mention the number of carriers on which UE can search.
 - QC will copy the agreement in the coversheet when it gets merged in the RRC CR.
- => The text in this CR will be merged in the final RRC CR R2-105128 (see [71#07]), the ASN.1 also needs to be checked
- [R2-104660](#) Way forward for UE measurement capability signalling for 4C-HSDPA Huawei Disc REL-10 4C_HSDPA-Core
- ALU: number of carriers UE can measure is linked to UE category and rel'10 flag?
- => Noted
- [R2-104857](#) Discussion on UE search capabilities for 4C-HSDPA InterDigital Disc REL-10 4C_HSDPA-Core
- ITD: In case rel'10 flag is false, there is no change to existing flags. However if rel'10 flag is true then there are dependencies with rel'9/8.
- => Noted

Alternatives:

- 1 Rel'10 flag indicating measurement capabilities
 - Flag indicates UE capability to perform search without CM on 3 carriers
 - If flag is false, rel'8/9 flags apply
 - Flag indicates UE capability to perform search without CM on 3 or 4 carriers depending on UE category (support of 3 or 4 carriers)
 - If flag is false rel'8/9 flags are false
 - Enum indicates UE capability to perform search without CM on 3 or 4 carriers
 - If flag is false rel'8/9 apply

-If flag is true, dependencies on rel'8/9 flags

- QC: performing search on 4 carriers is different from supporting 4 carriers, this is asking a lot of UE capabilities. Also the use case is bigger with 3 searches rather than 4.
- ALU: rel'8/9 flags are disabled if rel'10 flag is true in HW proposal? Yes. VDF: what happens in rel'8 NW? rel'8 is set to false.
- Ericsson, Samsung, ST-Ericsson: Supports QC proposal.
- ITD: fine with QC proposal, we still need to discuss how to set rel'8/9 flags when rel'10 flag is true.
- NSN: agree with ITD

=> Agreement:

1 Rel'10 flag indicating measurement capabilities

- Flag indicates UE capability to perform search without CM on 3 carriers
- If flag is false, rel'8/9 flags apply

Open issue:

- How to set rel'8/9 flags when rel'10 flag is set to true?

- NSN concerned about letting this to UE implementation
- Ericsson: We need to ensure UEs won't set the flag in a stupid way, similar to categories dependencies.
- ITD: fine with leaving this to UE implementation.

Others

[R2-104798](#) On the configuration of 4C Ericsson, ST-Ericsson Disc REL-10 4C_HSDPA-Core withdrawn

[R2-104918](#) 4C data rate indication in RRC Connection Request Ericsson, ST-Ericsson, ZTE Disc REL-10 4C_HSDPA-Core

=> The document is revised in [R2-105052](#)

[R2-105052](#) 4C data rate indication in RRC Connection Request Ericsson, ST-Ericsson, ZTE Disc REL-10 4C_HSDPA-Core

- HW: doesn't see the benefit of such indication. Not clear how the NW can use this information. RACH bandwidth is scarce, spending this is expensive. Ericsson: difficult to go into more details of use of this flag. The scarcity of RACH bw can be addressed, there are proposals in this meeting.
 - DT: supports the proposal to extend the indication to NW but we shouldn't have to move to a larger TTI.
 - HW: Nokia scheme doesn't increase RACH bw but saves existing bits. Ericsson: Nokia proposal would save 12 bits, even without the proposal we don't need to increase the TTI.
 - TIM: how many bits are needed for this CR? With NCE bits, it's 2 bits.
 - Orange, TIM, VDF support the proposal.
- => Proposal 1 is agreed

[R2-104915](#) Indication of 3/4 carrier support in RRC Connection Request Ericsson, ST-Ericsson CR 25.331 (4316) - F REL-10 4C_HSDPA-Core

=>The CR is revised in [R2-105053](#)

[R2-105053](#) Indication of 3/4 carrier support in RRC Connection Request Ericsson, ST-Ericsson, ZTE CR 25.331 4316 - F REL-10 4C_HSDPA-Core

- Nokia: category->hs-dsch physical layer category (check IE), this is aligned with 306 terminology.
 - Nokia: naming "higher" rate isn't forward compatible. Ericsson: by combining this info with release indicator this can be made forward compatible. QC: forward compatibility won't work if UE moves back in earlier release NW. Samsung agrees with QC.
 - QC: RAN box should be checked. Cat F? Ericsson: CR may be merged.
- => With the change in the category name (hs-dsch phy cat) We agree with the principle of the CR. This will be merged with the RRC in [R2-105070](#).

10.3 WI: RF pattern matching in UMTS (RP-091427)

(LCS_UMTS_RFPMTC-Core; leading WG: RAN2, started: Dec. 09, target: Dec. 10, WID: RP-091427)

- [R2-104796](#) Support of RF Pattern Matching in UTRAN Ericsson, ST-Ericsson CR 25.305 (0118) - C REL-10 LCS_UMTS_RFPMT-Core
=> Not treated
- [R2-104844](#) RFPM Stage II Definition Polaris Wireless CR 25.305 - - B REL-10 LCS_UMTS_RFPMT-Core
=> The CR is revised in [R2-105072](#)
- [R2-105072](#) RFPM Stage II Definition Polaris Wireless CR 25.305 (0119) - C REL-10 LCS_UMTS_RFPMT-Core
- Ericsson: sentence “These methods, when used with existing measurement types, will work with existing UEs without any modification and require no new radio hardware in the network” should be removed.
=> The CR is revised in [R2-105077](#), CR#0119
- [R2-105077](#) RFPM Stage II Definition Polaris Wireless CR 25.305 0119 - C REL-10 LCS_UMTS_RFPMT-Core
- Remove track changes on coversheet, accept changes.
- The sections 8.3.1 and 8.3.2 have been switched. Need to move back in original order.
- Ericsson: section 8.3.1 should be called “cell-id” instead of enh. Cell-id.
- Qualcomm: figures 8.1 and 8.2 should indicate changes as per MCC rules: old picture is removed and new picture is added instead.
- Qualcomm: style incorrect in new subclause
- Nokia: what does “partially supported” mean? The reason was to allow addition of measurements for RFPM, that is one of the purposes of the WI.
- Ericsson: can this be taken away? If that doesn’t impact stage 3 then we can remove this “fully or partially”.
- QC: stage 3 specs need to be listed.
- Ericsson: We need to be able to agree on a CR.
=> The CR is revised in [R2-105088 R1](#)
- [R2-105088](#) Support of RF Pattern Matching in UTRAN Polaris Wireless, AT&T, Motorola, Alcatel-Lucent, Agilent, Thales Alenia, Andrew Corp., Stoke Inc., True Position CR 25.305 0119 1 C REL-10 LCS_UMTS_RFPMT-Core
=> The CR is agreed

Offline discussion: (PW = Polaris Wireless)

- PW: some open issues resolved, still an open point on where the section for RFPM is.
- Ericsson: agree there is an open issue. Thought it had be resolved earlier. -Ericsson: ok with having a separate subclause but needs to be under 8.3.2.
- PW: this CR is based on a QC CR and PW has compromised on different topics for the last 6 months. The CR is supported by 9 companies.
- PW: we need a separate section to allow futher evolution of the feature, placing the section under 8.3.2.1 will mean any evolution of the feature can be blocked under this reason.
- CSR: for example RTT has been used for RFPM
- Points of contention:
- 1: Separate subclause for RFPM
- 2: Where to place the subclause
 - RFPM subclause under 8.3.4 (separate subclause)
 - RFPM subclause under 8.3.2.1 (below CELL-ID with pathloss related measurement)
- QC: why is the placement of 8.3.2.1 such a problem? PW: the path loss techniques are very specifically defined and what has been studied under the SI doesn’t fit there. The simulation results didn’t make use of pathloss and . NSN: moving this section under 8.3.2.1 is a good way forward.
- Proposed way forward:
 - RFPM subclause under 8.4.3?
 - Ericsson, ST-Ericsson and Nokia have concerns about this. Ericsson indicates the location of the section in no way can prevent the RFPM feature from being evolved, even using measurements not related to path loss. PW: ok to move under 8.3.2 but a line needs to be added under RFPM: “RFPM may utilize measurements other than measurements noted above”
- True Position: what are the reasons why other companies want this section under 8.3.2.1?
- QC doesn’t see why there is a concern that the measurements to use should be restricted to the list under 8.3.2, this wasn’t the intention of the structure, what is listed are examples of measurements available today, in no way should it block other measurements.

=> With the section modified as explained above the section is moved under 8.3.2.1

- Are there other contention points? Nokia indicates there may be a few other minor points but the major one is indicated above.

10.4 WI: TEI10

10.4.1 In principle agreed CRs

[R2-104267](#) Introduction of Rel-10 access stratum release indicator Ericsson, ST-Ericsson CR 25.331
4207 - B REL-10 TEI10
=> The CR is agreed

10.4.2 Others

[R2-104373](#) Consideration on the cell reselection to the other RAT from UTRA connected mode NTT
DOCOMO, INC. Disc REL-10 TEI10

- Nokia: we already have inter-rat to GERAN and that's handled. ALU: could the CN handle the relocation if ISR is used? Is there no way that a CN solution is found?
- DCM: currently there is no solution. This should be investigated with SA/CT colleagues. NSN: the same mobility happens with GERAN, best to check offline if ISR can be applied in this case.
- Companies are invited to check with their SA/CT colleagues.
- Ericsson: if this happens, is it even a problem?

=> Noted

Issue with Security mode procedure

[R2-104450](#) Discussion of Cell Update Aborting ongoing SecurityMode Command Problem Qualcomm Incorporated Disc REL-10 TEI10

- RIM: agree doing nothing isn't an option. Call drops need to be handled when possible.
- RIM: when message 4 is received at NW, can NW revert security mode? That cannot be confirmed since it's NW implementation specific.
- Nokia: prefers doing nothing at spec level because this is a r99 issue and there are workaround issues in both UE/NW. Ericsson: wouldn't want to rely on UE implementations.
- Ericsson: this should be handled in the specification.
- NSN: not clear we have to do something because we anyways have the issue today.
- DT: Prefer to handle the issue if there is a simple solution. We need to verify that any workaround won't create more issues in the NW.
- RIM: agree their solution isn't going to solve all cases but it is a light solution and can be easily implemented. Nokia considers RIM solution is more of a smart UE implementation solution. RIM indicates that wouldn't be a really compliant UE implementation.
- Ericsson: would prefer ensuring that RIM solution is allowed rather than mandated. That is also RIM's intention.
- NSN: if we have a solution, we need to solve all cases.
- ATT: We need to solve dropped calls and RIM's solution allows a simple way to handle this.
- ALU: Would prefer to have a solution solving all cases, prefers solution proposed by Qualcomm.
- DT: What is RIM's intention, mandate UE behavior or allow UE behaviour. RIM indicates they want to allow UE behaviour.
- NSN: we want to handle the issue if there is a complete solution. QC agrees. NSN agrees QC solution would be sufficient.
- HW: RIM's solution is sufficient. Nokia: it isn't sufficient; there are already today some partial solutions so it won't help much more to add partial solutions. RIM doesn't think there are other partial solutions.
- Ericsson: we could also try to have both RIM's and QC's solution since they're based on each other.

- Panasonic: we need to allow no solution allowed. Ericsson: many companies have asked that this be handled. Panasonic wants to ensure this solution is optional to implement. This has been the principle since rel'7.
- Alternatives:
 - Solution proposed by RIM
 - Solution proposed by QC
 - Hybrid allowing for both QC and RIM
- It would be good if companies can investigate that the hybrid would work. RIM agrees we need to verify the hybrid.
- => Companies need to discuss the hybrid solution: RIM: need to see a written proposal to really conclude.
- => Agreement to handle the issue. Contribution invited for the next meeting.
- => Noted

[R2-104451](#) Discussion of Cell update aborting ongoing Security Mode Command problem Qualcomm Incorporated CR 25.331 (4241) - C REL-10 TEI10
=> Not treated

[R2-104769](#) Enhanced Security Mode procedure handling in case of delayed L2 ACK Research In Motion UK Limited CR 25.331 (4307) - C REL-10 TEI10
=> Not treated

ASN.1 Improvement

[R2-104524](#) Addition of optimised RACH message types Nokia Corporation, Nokia Siemens Networks CR 25.331 (4260) - B REL-10 TEI10

- QC: what are the expected gains? Nokia: 12 NCE bits -1 = 11 bits; more can be saved later.
- QC: for rel'10 timeframe, shouldn't we be considering BW provided by enh. UL in Cell fach? Nokia: This would mandate enh. UL in cell fach to be supported everywhere. Ericsson: agree with Nokia we can't rely on features being implemented everywhere.
- Ericsson: there can be even more savings provided by further improvements (dependencies of features on each other). Can be considered separately but within rel'10.
- Ericsson: we should consider making this mandatory for rel'X UEs. Need to decide X.
- QC: this isn't a long term solution. We need to consider using enh. UL in Cell fach. Ericsson: not feasible to force this feature. HW: this solution isn't long term, maybe ok for rel'10 but not after.
- TIM: it isn't sensible to depend on enh. UL in cell fach to solve this issue.
- QC: pain vs gain for this isn't interesting.
- Ericsson: pain is really small in this case.
- DT: agree with TIM that we cannot depend on enh. UL in cell fach, if we can gain some rach bw we should do this. DCM agrees that operator shouldn't have to wait for enh. UL in cell fach to get the benefit.
- HW: if it's optional then the feature really isn't interesting. QC: this feature has to be optional, there needs to remain the choice to use the legacy message.
- TIM: UE will have to support the legacy message anyways. Ericsson: it's clear that UE will always be able to send the rel'10 flags on the old rach format.
- QC: there has not been analysis shown demonstrating that we are running out of RACH capacity today.
- NSN: companies can bring analysis about the gains provided by this improvement at the next meeting. Ericsson: we also need to see what the bottleneck on the RACH is.
- HW: We want to see the bottleneck. Ericsson: HW indicated RACH bottleneck the day before.
- There is support for this proposal, analysis needs to be shown.
- TIM: we can also see alternative, but it's a waste of time to see analysis. Samsung: it's a well known fact that RACH is bottleneck but we need to know how much we're really gaining.

=> Not agreed

Band support indicator

[R2-104710](#) UE supported Frequency band indicator for redirection Nokia Siemens Networks, Nokia Corporation, Deutsche Telekom, NTT DOCOMO Disc REL-10 TEI10
=> Proposal: Adopt the band indicator way to solve blind redirection issue in Release 10
Tdoc is noted

- [R2-104711](#) UE supported Frequency band indicator for redirection in RRC CONNECTION REQUEST
Nokia Siemens Networks, Nokia Corporation, Deutsche Telekom, NTT DOCOMO CR
25.331 (4296) - B REL-10 TEI10
=> The CR is revised in [R2-105068](#)
- [R2-105068](#) UE supported Frequency band indicator for redirection in RRC CONNECTION REQUEST
Nokia Siemens Networks, Nokia Corporation, Deutsche Telekom, NTT DOCOMO, CMCC,
ZTE, CATT, TD-Tech CR 25.331 4296 - B REL-10 TEI10
- Remove curly brackets
- ALU: more time is needed to check the CR. NSN: apart from E/// comment, the other
difference was to add the handling for TDD.
- Only one constant will be added instead of 2 for TDD/FDD.
=> The CR is revised in [R2-105081](#), R1
- [R2-105081](#) UE supported Frequency band indicator for redirection in RRC CONNECTION REQUEST
Nokia Siemens Networks, Nokia Corporation, Deutsche Telekom, NTT DOCOMO, CMCC,
ZTE, CATT, TD-Tech CR 25.331 4296 1 B REL-10 TEI10
- Tdoc needs to be corrected
=> With this change the CR is agreed in [R2-105129](#)

VoIP enhancement

- [R2-104417](#) RLC UM ciphering error detection and recovery for VoIP Ericsson, ST-Ericsson Disc
REL-10 TEI10
- Nokia: if we don't want to mention voip, how to ensure NW will distinguish between voip
bearers and others. Ericsson indicates that would be left up to NW implementation.
- QC: for VoIP, do we have PDCP configured? HW indicates RoHC will be used hence
PDCP is used. HW: this will depend on NW configuration whether PDCP header is present
or not. If PDCP header is present then this feature is used, otherwise it isn't. QC: what
happens in normal operation when there is no PDCP header? In this case this feature isn't
used. QC has a concern on the general use case. Ericsson: it would be good to know what
is the real use case.
- Samsung: is proposal 3 intending to mandate NW? Samsung thinks there isn't much to
discuss there since it's up to NW to decide how to configure.
=> Noted
- [R2-104738](#) UM RLC ciphering error detection and recovery enhancement for IMS voice Nokia Corporation,
Nokia Siemens Networks CR 25.331 (4297) - B REL-10 TEI10
=> The CR is postponed
- [R2-104739](#) UM RLC ciphering error detection and recovery enhancement for IMS voice Nokia Corporation,
Nokia Siemens Networks CR 25.306 (0274) - B REL-10 TEI10
=> The CR is postponed

Positioning

- [R2-104465](#) Small Technical Enhancements and Improvements for GNSS Qualcomm Incorporated CR
25.331 (4250) - B REL-10 TEI10
=> The CR is revised in [R2-105065](#)
- [R2-105065](#) Small Technical Enhancements and Improvements for GNSS Qualcomm Incorporated CR
25.331 (4250) - B REL-10 TEI10
- Nokia: why were extensions added in rel'9 branch? QC indicates the intention was to
make it available in rel'9 branch already. Nokia indicates this is a release 10 feature, it
doesn't need to be in rel'9 branch. This can be removed.
- Ericsson: optional boolean could be made "enumerated true". QC indicates explicit
indicates of true/false is needed for the information, not included is not sufficient as it
would mean pre-rel'10
=> The CR is revised in [R2-105107](#)
- [R2-105107](#) Small Technical Enhancements and Improvements for GNSS Qualcomm Incorporated CR
25.331 4250 - B REL-10 TEI10
- Ericsson: need to ensure this will compile. There were a few ASN.1 changes since the
first update. Nokia: original version was checked, no issue with the technical issue.
=> No concern with principle or technical details of CR.
=> deferred to email discussion [71#08] to check that ASN.1 compiles
Deadline: Thursday September 2nd.
=> Final version to be made available in [R2-105116](#) R1

- [R2-104770](#) Use of Navigational Model Additional data Research In Motion UK Limited CR 25.331 (4308) - F REL-10 TEI10
- ALU: why rel'10 only? Addressed with magic sentence. Ericsson considers this is already clear in the spec hence no strong need to have a CR, so rel'10 with early implementability is appropriate
 - ALU: why isn't ran box ticked? Can be checked. Ericsson thinks this is only a clarification for UE, shouldn't impact NW. The consequences if not approved can be modified to align with no ticking ran box
- => The CR is revised in [R2-105108](#)
- [R2-105108](#) Use of Navigational Model Additional data Research In Motion UK Limited CR 25.331 4308 - F REL-10 TEI10
- => The CR is agreed

10.5 Other UTRA Rel-10 WIs/SIs

(ANR_UTRAN-Core, leading WG: RAN3, started: June 10, target: Dec. 10, WID: RP-100688)

Contributions related to UTRAN-ANR can be submitted under this agenda item.

[NOTE] Potential questions to RAN3:

-How is RNC-id derived in LTE-ANR when UTRA neighbors are reported.

10.5.1 ANR for UTRA

10.5.1.1 ANR measurement control and reporting

Including how UE indicates support, how NW configures ANR measurements and how UE reports measurements

- [R2-104525](#) ANR Configuration and Reporting Nokia Corporation, Nokia Siemens Networks Disc REL-10 ANR_UTRAN-Core
- => Not treated
- [R2-104749](#) ANR UE capabilities Alcatel-Lucent Disc REL-10 ANR_UTRAN-Core
- => Not treated

10.5.1.2 ANR Measurements

Including how UE performs ANR measurements in intra-frequency, inter-frequency and inter-RAT cases, in which states are measurements performed

- [R2-104357](#) Comparison on UTRAN ANR solutions Huawei Disc REL-10 ANR_UTRAN-Core
- Nokia: what is the third solution? HW indicates it's an MDT like solution where UE only logs the info.
 - NSN: UE would need to reselect to the cell to read the sib.
 - ZTE: we should not increase the scope of the solutions. HW: no need to limit ourselves to 2 solutions, UEs in idle mode could log PSCs to report later on.
 - Nokia; in cell-dch method, when would CM be activated? HW: that depends on UE implementation, either no CM is needed or special CM gaps would be needed.
 - Nokia; LTE solution is quite different and takes advantage of DRX. Is HW envisioning dual rx UEs? Not for intra-frequency.
 - Nokia wouldn't like to have CM enabled unless really needed. Not realistic to rely on UEs needing inter-freq CM. HW doesn't think this feature would be turned on very widely.
- => Noted
- [R2-104412](#) Method for ANR support in UTRAN Ericsson, ST-Ericsson Disc REL-10 ANR_UTRAN-Core
- ZTE: reselection method may consume more power.
 - TIM: many of the questions can be answered by what was done in LTE as operators would consider similar deployments. DT: considers ANR is more for optimization.
 - What PLMN are we considering for ANR in UTRA?
 - QC: agrees with proposal 1 and would like to point out also the battery consumption issue
 - Proposal for a way forward:

- Collect concerns for each approach non-cell-dch based and cell-dch based to see how these can be addressed
- Email discussion to collect list of discussion points for each approach
 - Nokia will collect discussion points on non-cell-dch based approach [71#54]
 - ZTE will collect discussion points on cell-dch based approach [71#53]
 - Huawei will collect discussion points on MDT based approach [71#55]

[R2-104526](#) ANR Measurements and Triggering Nokia Corporation, Nokia Siemens NetworksDisc REL-10 ANR_UTRAN-Core

- ZTE: ANR success depends on UE mobility, NW may need the info faster.
- Chairman: We have agreed to design this feature for best effort.
- ZTE: reselection behavior will be impacted due to ANR.
- Nokia: the dependency on UE mobility is actually the point of this proposal, there's where the neighbor relationships are needed.
- TIM: measurements reported by ANR can also be used for blacklisting, to detect non-suitable cells. It would be a concern that UE keeps reporting these non-preferred cells. Nokia doesn't think that ANR would be configured on all UEs simultaneously.
- VDF: in case deployment favors one freq over another one, there is a concern the UEs may start not behaving as per r99 principles. Wouldn't want UEs to start camping on any cells. Nokia considers operators still has control on where the UEs would end up camping. VDF thinks then it becomes very similar to SI reading. Orange shares the concern by VDF; also thinks this scheme should apply to states other than cell-pch. Should be extended to ura-pch, idle and cell-fach.
- DT: concerned that the fake cell scenario would create security issues. That scenarios applies not only to ANR but any cell reselection.
- CATT: need to ensure that fake neighbor relationships after going OOS aren't considered as valid when it's reported.

=> Noted

[R2-104298](#) More Considerations of Agreements for ANRF solution ZTE Disc REL-10 ANR_UTRAN-Core

=> Not treated

[R2-104600](#) Discussion on UTRAN ANR CATT Disc REL-10 ANR_UTRAN-Core

=> Not treated

[R2-104750](#) ANR measurement control and reporting Alcatel-Lucent Disc REL-10 ANR_UTRAN-Core

=> Not available therefore withdrawn

[R2-104299](#) Specification Impact Analysis of SI-reading Based ANRF Solution ZTE ? REL-10 ANR_UTRAN-Core

=> Not treated

10.5.1.3 Other ANR issues

[R2-104392](#) Consideration on the restriction of UTRA-ANR NTT DOCOMO, INC. Disc REL-10 ANR_UTRAN-Core

- Nokia considers that with SI reading approach the UE would have to go and read SI before deciding not to report.
- ZTE: maybe some operators needs to get PLMN that UE doesn't belong to.
- HW: operators already have the means to do this. That is an operator choice.

=> Noted

[R2-104527](#) ANR other considerations Nokia Corporation, Nokia Siemens NetworksDisc REL-10 ANR_UTRAN-Core

- ZTE considers similar triggering drawbacks can be found for reselection mechanism.
- ZTE: we should stop considering feature dependency with CSG. SI reading is a separate functionality.
- Panasonic: How is UE going searching other frequencies? Only listed ones.

=> Noted

10.5.2 Other UTRA Rel-10 Wis

No contributions.

11 Outgoing LS and email discussions for UTRA

11.1 Agreed outgoing LS for UTRA

[R2-104941](#) Reply LS on Support for different HS-SCCHs in contiguous TTIs in CELL_FACH (Qualcomm)
RAN2 LSout to RAN1 REL-8RANimp-64QamDownlink

11.2 Email discussions for UTRA

1. Email discussion for ANR – Discussion points for CELL_DCH based approach
 - Contact: ZTE
 - Deadline: RAN#71b submission deadline
 - Expected output: report
2. Email discussion for ANR – Discussion points for non CELL_DCH based approach (cell reselection approach)
 - Contact: Nokia
 - Deadline: RAN#71b submission deadline
 - Expected output: report
3. Email discussion for ANR – Discussion points for non CELL_DCH based approach (log approach)
 - Contact: Huawei
 - Deadline: RAN#71b submission deadline
 - Expected output: report
4. Email approval for Introduction of 4C-HSDPA categories in 25.306 (R2-105064)
 - Contact: Nokia
 - Related
 - Deadline: Thursday September 2nd
 - Expected output: CR to 25.306 in R2-105262
5. Email approval for Introduction of 4C-HSDPA for FDD in 25.302 (R2-104390)
 - Contact: Infineon
 - Deadline: Thursday September 2nd
 - Expected output: CR to 25.302 in R2-105139
6. Email approval for Introduction of 4C-HSDPA for FDD in 25.331 (R2-105070)
 - Contact: Qualcomm
 - Deadline: Thursday September 2nd
 - Expected output: CR to 25.331 in R2-105128 R1
7. Email approval for Small Technical Enhancements and Improvements for GNSS (R2-105107)
 - Contact: Qualcomm
 - Deadline: Thursday September 2nd
 - Expected output: CR to 25.331 in R2-105116 R1
8. Email approval for Corrections to Enhanced CELL_FACH state for FDD (R2-105021/R2-105022/R2-105023/R2-105024)
 - Contact: Infineon
 - Deadline: Thursday September 2nd
 - Expected output: CRs to 25.308 in R2-105133/R2-105134/R2-105135/R2-105136 (all Rev1)
9. Email approval for State transition upon HS-DSCH reception in CELL_PCH state (R2-104639/R2-104641/R2-104643/R2-104645)
 - Contact: Huawei
 - Deadline: Thursday September 2nd
 - Expected output: CRs to 25.321 in R2-105031/R2-105032/R2-105033

12 Left-overs

12.1 LTE adhoc session

R2-105201: User plane adhoc meeting report
=> Minutes are approved

R2-105200: Introduction of Carrier Aggregation CR 36.321
=> W.r.t. 5.x, highlight sentence: Fujitsu wonders if it is appropriate to talk about search space reception in the MAC spec ? Motorola wonders if RAN1 should not capture this only. Panasonic thinks in Rel89 we did not care how we received the grant. Chairman indicates it might be considered similar to DRX. Ericsson would prefer activation/deactivation impact to RAN1. Will try to reformulate the sentence with not talking about search space

- ZTE wonders if we should mention impact to CQI of deactivation ?
- ZTE thinks we only activated/deactivate DL's of Scells currently. So is it correct to talk about Scell activation/deactivation ? Ericsson agrees for now it is only the DL, but this is clear from the description. Maybe we can add this if we finally decide UL is not impacted.

=> Will see update in R2-105220

R2-105220: Introduction of Carrier Aggregation CR 36.321
=> CR is endorsed as basis for further work

12.2 UMTS

[R2-105112](#) Interfrequency detected set measurement for UMTS Nokia
Companies are invited to check the WI to discuss at the next RAN plenary not treated

13 Outgoing LS and output to other groups for LTE

To: OMA LOC

R2-104692: Draft response to LS from OMA LOC on LPP extensions Qualcomm Incorporated LSout REL-9 LCS_LTE
Question 4:

- NSN wonders what we would say if there is no impact to LPP; then RAN2 would allow ? QC assumes that if there is no impact to LPP, it is no RAN2 business. NSN thinks we could directly answer that as long as there is no impact to LPP, we have no concerns.
- NTT DCM does not really understand how the functions can swap. If this could really happen, we would need to indicate something in LPP they assume.

=> Allow some offline discussion especially on the fourth bullet and see if we can respond from this meeting, or inputs are needed at next meeting. If response can be provided, use R2-104937 => Updated before presentation in R2-105230

R2-105230: DRAFT Reply LS Concerning LTE Positioning Protocol
=> LS is agreed in R2-105237

To: SA5; Cc: RAN3

R2-104935: [DRAFT] Reply LS on MDT configuration for IDLE mode UE
=> Add RAN3 in CC.
=> LS is agreed with this change in R2-105227

To: SA2; Cc: GERAN2

R2-104936: Handling for priority for terminating session with CSFB
=> Finally R2-104936 was withdrawn and LS was postponed to the next meeting

To: SA3; Cc: RAN3, SA5

R2-104940: [DRAFT] Response LS to R2-104233_S3-100901 on enhancing AS security
=> Change to "feasible in Rel-10"
=> With this change the LS is agreed in R2-105204

To: SA2, CT4; CC: RAN3, RAN5

R2-104944: [draft] SRB only PS Handover
=> Title of section 3 should be updated
=> bix should be bis
=> LS is agreed in R2-105231

To: SA5

R2-104960: [DRAFT]LS on Interaction with Trace for MDT
Question 2
=> NTT DCM thinks there are other ways of handling this. NTT DCM/DT would prefer not to sent the IP address, so maybe we should indicate this. We ask them if they could come with other solution then IP address.
=> Meeting dates are not completely correct
=> Will try to cleanup / formulate real questions to SA5 on our assumptions.
=> EMAIL DISC [71#02] on improving wording rather than minute dump (1 week)
=> Final version in R2-105233 (as source field in R2-105233 was wrong this LS was revised in R2-105267)

To: RAN4; Cc: RAN1

R2-104985: Deactivation considerations
=> LS is agreed as is

To: RAN3, SA2

R2-104994: Considerations on counting for MBMS activation
- QC thinks we should clarify that we assume that assumption 1 has no architecture impact on the architecture.
=> Add "for RAN3" tag above assumption 1, and "for SA2" tag before "MBMS service via unicast"
=> Change last bullet to: ".. the MBMS service via unicast and the MBSFN area they are in,..."
=> Xian is spelled wrong
=> With these changes the LS is agreed in R2-105226

To: RAN1, RAN4

R2-104395: Draft LS on virtual PHR Nokia Siemens Networks, Nokia CorporationLSout REL-10 LTE_CA-core
not treated

To: SA2

R2-104995: [DRAFT] LS on enhanced 1xCS fallback support for dual Rx/Tx UE
=> Incorrect attachment; should attach true Tdoc
=> LS is agreed with this change in R2-105218

To: SA2

R2-104997: [Draft] LS on MBR>GBR handling in the UE
- Ericsson would like to make it clear that the drop rate is really only 1%.
=> Will add to the end of the second paragraph: "Note that for TCP based applications, a packet dropping rate of around 1% is assumed."
- ALU wonders if there is a common understanding that the bearer would continue not to behave if wiht ECN/dropping it stayed above the MBR ?
=> With the one change the LS is agreed in R2-105229

To: RAN; Cc: RAN4, RAN5

R2-105206: [DRAFT] LS on RN testing
- Vdf would prefer to have a rewording as questions. NSN wonders what the problem is with the current formulation ?
=> Will add "tentatively assumes"
=> NEC thinks the aspects of the RN working as UE are missing. Can discuss if something shuld be added for the RN acting as UE
=> Some rewording required
=> Can see update in R2-105244
R2-105244: [DRAFT] LS on RN testing

=> EMAIL DISC one week email approval Final version in R2-105247

To: BT SIG CSWG

R2-105213: [Draft] LS on enquiry of ongoing activity in Bluetooth SIG for interference avoidance to/from LTE in case of in-device coexistence

=> LS is agreed in R2-105221, BUT will only be sent to BT SIG after confirmation that RAN2 can liaise with BT SIG.

14 Any other business

Meeting schedule 2010/2011/2012:

MEETING	DATES	LOCATION	HOST	CO-LOCATION
RAN2 #68bis	18 Jan – 22 Jan 2010	Valencia, Spain	EF3	RAN 1/2/3
RAN2 #69	22 Feb – 26 Feb 2010	San Francisco, USA	NAF3	RAN1/2/3/4/5 ++
RAN #47	16 March – 19 March 2010	Vienna, Austria	EF3	
RAN2 #69bis	12 April – 16 April 2010	Beijing, China	Huawei	RAN1/2/5
RAN2 #70	10 May – 14 May 2010	Montreal, Canada	RIM	RAN 1/2/3/4/5
RAN #48	1 June – 4 June 2010	Seoul, Korea	TTA	
RAN2 #70bis	28 June – 2 July 2010	Stockholm, Sweden	Ericsson	RAN 2
RAN2 #71	23 Aug. – 27 Aug. 2010	Madrid, Spain	EF3	RAN 1/2/3/4/5
RAN #49	14 Sep. – 17 Sep. 2010	San Antonio, USA	NAF3	
RAN2 #71bis	11 Oct. – 15 Oct. 2010	Xian, China	ZTE	RAN 1/2/3 (RAN4)
RAN2 #72	15 Nov. – 19 Nov. 2010	Jacksonville, USA	NAF3	RAN1/2/3/4 +++
RAN #50	7 Dec. – 10 Dec. 2010	Istanbul, Turkey	EF3	
RAN2 #72bis	17 Jan – 21 Jan 2011	Dublin, Ireland	EF3	RAN1/2/3
RAN2 #73	21 Feb – 25 Feb 2011	Taipei, Taiwan	HTC	RAN 1/2/3/4/5
RAN #51	15 March – 18 March 2011	?, USA		
RAN2 #73bis	11 April – 15 April 2011	?, China	ZTE	RAN 2/4
RAN2 #74	9 May – 13 May 2011	Kobe (tbc), Japan	JF3	RAN 1/2/3/4/5
RAN #52	31 May – 3 June 2011	Bratislava, Slovakia	EF3	
RAN2 #74bis	27 June – 1 July 2011			RAN2
RAN2 #75	22 Aug. – 26 Aug. 2011	Athens, Greece	EF3	RAN 1/2/3/4/5
RAN #53	13 Sep. – 16 Sep. 2011	Japan (tbc)		
RAN2 #75bis	10 Oct. – 14 Oct. 2011	?, China	CATT	RAN1/2/3/4
RAN2 #76	14 Nov. – 18 Nov. 2011	Mega meeting?, USA	NAF3 (tbc)	RAN 1/2/3/4/5
RAN #54	6 Dec. – 9 Dec. 2011	Berlin, Germany	EF3	
RAN2 #77	6 Feb – 10 Feb 2012	?, Europe	EF3	
RAN #55	28 Feb – 2 March 2012			
RAN2 #77bis	26 March – 30 March 2012			
RAN2 #78	21 May – 25 May 2012			
RAN #56	12 June – 15 June 2012	?, Europe	EF3	
RAN2 #79	13 Aug. – 17 Aug. 2012	?, Europe	EF3	
RAN #57	4 Sep. – 7 Sep. 2012			
RAN2 #79bis	8 Oct. – 12 Oct. 2012			
RAN2 #80	12 Nov. – 16 Nov. 2012			
RAN #58	4 Dec. – 7 Dec. 2012	?, Europe	EF3	

EF3: European Friends of 3GPP

NAF3: North American Friends of 3GPP

JF3: Japanese Friends of 3GPP

++: SA1, SA2, CT1, CT3, CT4, CT6 also co-located

+++ SA2, SA5, CT1, CT3, CT4 also co-located

For plans for email discussions after RAN2 #71 see Annex G.

15 Closing of the meeting

The TSG RAN WG2 chairman Gert-Jan van Lieshout thanked the delegates for participating and contributing to RAN WG2 meeting #71. He thanked the European Friends of 3GPP for hosting this meeting and closed the meeting on Friday August 27th, 2010 at about 17:00.

Annex A: Report of LTE Carrier Aggregation Stage 3 User Plane session

This Annex A includes the report of the LTE Carrier Aggregation Stage 3 User Plane session held on Wed afternoon (agenda items 7.1.3).

The report of this session in R2-105201 is copied here for convenience (updates are indicated in grey).

7.1.3.1 Running CR

Latest version of the running CR for 36.321 from rapporteur, as well as corrections of obvious errors from other companies.

=> Including email outcome for [70b#12] - LTE: Carrier aggregation MAC CR (Ericsson)

Rapporteur

email outcome for [70b#12] - LTE: Carrier aggregation MAC CR (Ericsson)

- [R2-104613](#) Introduction of Carrier Aggregation Ericsson CR 36.321 (0432) - B REL-10
LTE_CA-core
- Mediatek wonders if UL activation should be put as FFS. Ericsson prefers to capture agreements instead of FFS.
 - Nokia wonders if “*scheduling DL Serving Cell*” is defined anywhere? Ericsson points out that this was taken from the Stage 2. Ericsson and Nokia will work together to find a better wording.
- => endorsed as basis, future update in R2-105200 [CB]

Other

- [R2-104425](#) MAC structure to support CA MediaTek CR 36.321~~2~~ - - ? REL-10 LTE_CA-Core
- Ericsson points out that this has already been captured.
- => Not ~~treated~~ (not relevant anymore).

7.1.3.2 MAC BSR

E.g. Values in new BSR table. New LCID ?

Reminder of the agreements from the last meeting:

- 1) One new table
- 2) 6 bits BS (64 values)
- 3) Exponential distribution starting from 0, maximum FFS
- 4) Possible optimisations to accommodate specific values (e.g. SID frames) FFS.

New LCID

All contributions seem to propose that no new LCID is used.

- [R2-104535](#) Signalling of new BSR table Alcatel-lucent Disc
- Chairman proposes that since all contributions propose not to introduce any new LCID, it could be agreed. No objection.

Agreements

- 1) No new LCID for BSR, same LCID as in Rel-8/9 used in Rel-10 for CA.

Maximum Value

Three options are 1500kbytes, 3000kbytes or wait for RAN1/RAN4 to progress.

- [R2-104375](#) Remaining issues on BSR for Carrier Aggregation Nokia Siemens Networks, Nokia Corporation, NTT DOCOMO, INC. Disc
noted, no questions

- [R2-104328](#) Remaining issues on BSR table Fujitsu Disc

- NSN thinks the status in RAN1 should be clear.
- Ericsson thinks a max of 3000kbytes should cover all cases.
- Huawei prefers using 3000kbytes.

[R2-104472](#) BSR reporting for CA Ericsson, ST-Ericsson Disc

[R2-104436](#) Further details on Rel-10 BSR MediaTek Disc

[R2-104517](#) BSR details in CA CATT Disc

All 3 Tdocs not treated.

Discussion

- Samsung asks what 3000kbytes cover. NSN clarifies that it covers 5 UL CCs and 4x MIMO i.e. 20 times more than in Rel.8.
- CATT prefers to wait for UE capabilities to be agreed before deciding which maximum to use. Ericsson asks what would be the drawback of using 3000kbytes? CATT would only like to use the same approach as for Rel-8.
- Panasonic would prefer using 3000kbytes to cover all cases. Samsung also.
- LGE thinks that with such bit rates, we may face problems with PDCP SN.

Agreements

- 1) maximum value used for new BS table is 3000kbytes.

Optimised Distribution

Although exponential distribution has been agreed, some optimisations are proposed

[R2-104859](#) BSR for CA Huawei Disc

noted, no questions

[R2-104832](#) Discussion on BS table Samsung Disc

- Samsung clarifies that in the conclusion, solution 2 refers to common values in the lower range.

[R2-104901](#) Consideration on the design and usage of new BSR table ITRI Disc

noted, no questions

[R2-104913](#) Discussion on the Additional Buffer Size Table for CA HT mMobile Inc. Disc

- HT mMobile points out that their proposal is quite similar to ITRI's.

Two alternatives:

- A) Keep pure exponential distribution
- B) Different intervals with different step sizes

Discussion

- HT mMobile thinks it is important to minimise padding to maximise scheduling efficiency.
 - Ericsson believes the exponential distribution is enough.
 - LGE would not like to optimise.
- ⇒ pure exponential distribution is kept.

7.1.3.3 MAC Activation/Deactivation

E.g. How does the MAC CE look? What other information is included in an activation/deactivation command?

No Explicit UL

Three alternatives are:

- 1) 8 bits bitmap, SCell position in the bitmap equal to cell index signalled by RRC
- 2) 4 bits bitmap, SCells in the bitmap ordered according to their cell index signalled by RRC (SCell with lowest cell index, followed by SCell with 2nd lowest cell index...)
- 3) 4 bits bitmap, SCell index in the bitmap explicitly signalled by RRC

[R2-104537](#) Bit mapping for activation/de-activation MAC CE Alcatel-lucent Disc

noted

[R2-104316](#) MAC CE for Activation Deactivation Nokia Siemens Networks, Nokia Corporation Disc

[R2-104327](#) MAC CE for SCells (de)activation Fujitsu Disc

[R2-104437](#) Activation/deactivation MAC CE MediaTek Disc

[R2-104482](#) CC activation and deactivation message Ericsson, ST-Ericsson Disc
[R2-104726](#) The format of SCell (de)activation MAC CE Huawei Disc
[R2-104817](#) Activation/Deactivation MAC Control Element for LTE CA InterDigital Disc
[R2-104827](#) Discussion on Activate MAC CE format SamsungDisc
[R2-104439](#) CR for Activation/deactivation MAC CE MediaTek CR 36.3214 - - ? REL-10
 LTE_CA-Core
 All 8 Tdocs not treated.

Alternatives:

- 1) 8 bits bitmap, SCell position in the bitmap equal to cell index signalled by RRC
- 2) 4 bits bitmap, SCells in the bitmap ordered according to their cell index signalled by RRC (SCell with lowest cell index, followed by SCell with 2nd lowest cell index...)
- 3) 4 bits bitmap, SCell index in the bitmap explicitly signalled by RRC

Discussion

- Ericsson wonders if 5 bits are enough for the bitmap length? Alcatel-Lucent thinks it's enough in Rel-10.
- Huawei thinks we need to wait for PCell index to be agreed before we can agree on the bitmap. Panasonic believes that we only need to address SCells, so 4 bits should always be enough. Alcatel-Lucent worries about reconfiguration of PCell. NSN believes the eNB can refrain from sending MAC CE during possible periods of uncertainty.
- Samsung wonders what is the usefulness of sparing 4 bits? Panasonic sees them as "reserved for future use". Docomo thinks 5 bits for activation/deactivation + 3 reserved bits would be good enough. Ericsson believes that in that case, 8 bits would be best.
- CATT prefers alt.1.
- RIM & Mediatek prefer alt.2.
- Docomo wonders what the 4 bits would be used for. Panasonic points out that if UL activation/deactivation is agreed, we would then only need 1 byte for both directions.

Indicative Poll:

- 1) 8 bits bitmap, SCell position in the bitmap equal to cell index signalled by RRC → 9
- 2) 4 bits bitmap, SCells in the bitmap ordered according to their cell index signalled by RRC (SCell with lowest cell index, followed by SCell with 2nd lowest cell index...) → 9
- 3) 4 bits bitmap, SCell index in the bitmap explicitly signalled by RRC → 1

⇒ decision at the next meeting once UL activation/deactivation is settled. Alternatives are:
 1) 8 bits bitmap, SCell position in the bitmap equal to cell index signalled by RRC
 2) 4 bits bitmap, SCells in the bitmap ordered according to their cell index signalled by RRC (SCell with lowest cell index, followed by SCell with 2nd lowest cell index...) → can reduce overhead in case of explicit UL activation.

Explicit UL

[R2-104378](#) MAC CE format for Activation/Deactivation LG Electronics Inc. Disc
 ⇒ not treated without presentation

Timing

[R2-104518](#) Deactivation Timer Operation for UL Non-adaptive Retransmission CATT Disc
 - HT mMobile thinks that with an appropriate setting of the deactivation timer (long enough), there should not be any issue. CATT agrees but would prefer to keep this aspect out of the configuration.
 - Panasonic would prefer to wait to conclude the discussion on deactivation timer simplification (e.g. restart timer with MAC CE). Qualcomm agrees.
 ⇒ noted, can be discussed at the next meeting once the handling of the timer is settled.

[R2-104771](#) Delay in applying the deactivation command Ericsson, ST-Ericsson Disc
 ⇒ not treated without presentation given the discussion in the common session.

Withdrawn

[R2-104356](#) Restart the deactivation timer of any SCC after sending a SR HTC TP 36.321

withdrawn

7.1.3.4 Other

MSG4

Is Msg4 allowed on SCell?

[R2-104323](#) Msg4 and contention resolution Fujitsu Disc
noted, no questions

[R2-104727](#) Msg4 is restricted on PCell Huawei Disc
- ZTE thinks that cross-carrier scheduling of msg4 is not ruled out and even helpful. Huawei believes that PCell should anyway be available.
- LGE wonders if Huawei sees any problem by allowing msg4 on SCells. Huawei thinks it is simpler to limit it to PCell.

[R2-104381](#) Open Issue on Msg4 LG Electronics Inc. Disc

[R2-104625](#) Scheduling of source of message4 ZTE Disc

[R2-104718](#) Permitted grant allocation for msg4 Nokia Corporation, Nokia Siemens Networks Disc

[R2-104885](#) About allowing the Msg4 on SCells in CA HTC Disc

All 4 Tdocs not treated.

Discussion

- InterDigital wonders what PUCCH would be used in that case? Samsung does not see any issue. Docomo thinks it should be fine after msg3. InterDigital thinks that ACK/NAK resources might have been released. Samsung believes that in that case, the eNB should not cross schedule msg4.
- ⇒ keep MAC as it is, which allows cross carrier scheduling of msg4. May revisit this at the next meeting once the issue on ACK/NAK resources has been studied in more details.

PHR Format

[R2-104831](#) Discussion on PHR format Samsung Disc

[R2-104295](#) PHR MAC format for Carrier Aggregation Potevio Disc

[R2-104353](#) PHR format for CA LG Electronics Inc. Disc

[R2-104471](#) PHR reporting for CA Ericsson, ST-Ericsson Disc

[R2-104575](#) Design of PHR MAC CE format for CA New Postcom Disc

[R2-104752](#) Discussions on PHR MAC CE Design CATR Disc

All 6 Tdocs not treated

HARQ Entity Management at Deactivation

Any special action or can it be considered as Rel-8/9 DRX?

[R2-104391](#) Handling of DL HARQ processes upon deactivation ASUSTeK Disc
Proposal 1

Confirm that the corresponding HARQ entity is not removed when a SCell is deactivated.

- Samsung thinks this is logical
- ⇒ confirmed (already captured in MAC)

[R2-104473](#) Reset of HARQ entity for SCells upon deactivation Ericsson, ST-Ericsson Disc

- InterDigital asks if retransmissions are possible after deactivation. Ericsson would prefer not to reset the variable in order to cope with the possible loss of a deactivation command. NSN agrees and thinks it is quite similar to DRX in Rel-8/9. Huawei also shares Ericsson's view.
- LGE supports not resetting for DL but worries about UL. NSN points out that the buffer is flushed at timer expiration.
- Samsung thinks that if we have UL activation, it would be best to flush the buffers.
- NSN asks what happens currently with non-adaptive retransmissions once DL is deactivated. LGE is not sure whether there is a problem or not but just to be sure, would prefer to flush the buffers.
- Panasonic wonders what is the benefit of not flushing the buffers as you typically do not schedule retransmissions after deactivation.
- New Postcom believes that the chances of having a mismatch should be quite low thanks to HARQ. InterDigital adds that if buffers were also flushed at activation, then there wouldn't be any mismatch. HTC agrees.

- ASUSTeK believes this was already discussed in Rel-9 for DRX. CATT believes this is different from DRX and would prefer flushing the buffers.
- HTC points out that currently even at MAC reset we do not have special handling for MAC buffers. Samsung comments that at MAC reset, the buffers are flushed.
- Docomo points out that there are two aspects: NDI and buffers. Panasonic agrees and points out that in Rel-9, NDI is stored but buffer management is left to UE implementation. Mediatek agrees. Samsung agrees for DL but would like to study more for UL.

Agreements

- 1) For the DL, when an SCell is deactivated, the NDI of the corresponding HARQ entity is not reset, soft buffer management left up to UE implementation (as in Rel-9)

FFS if something more needed for UL if UL activation agreed.

HARQ Entity Management at Addition/Removal

Explicit action missing from the baseline CR?

R2-104309 HARQ operation in addition or activation of SCell HTC TP 36.321

- ASUSTeK wonders if “initialize the corresponding HARQ entity” does not already cover this. Huawei would prefer to have an explicit list of actions. Ericsson wonders if such a list is really necessary.
 - Docomo believes that currently we don’t have anything for initialisation.
 - Samsung thinks that the NDI setting is not needed as it is related to msg3 and that buffers should be empty.
 - NSN does not see the need for having those details. ASUSTeK & Ericsson agree.
 - HTC worries about different behaviour between PCell and SCells.
 - Samsung thinks it is enough to rely on UE implementation.
- ⇒ Not agreed.

R2-104861 HARQ Entity for SCells Huawei Disc

- Ericsson does not see the need for releasing the HARQ entities, resetting though is already done. Huawei comments that SCells can be added/removed at HO, so the HARQ entities should first be removed. NSN asks what happens when releasing the HARQ entity of an SCell that is also used in the target. Huawei’s understanding is that SCells are anyway different, so HARQ entities should be released.
 - Ericsson believes that “flush the soft buffers for all DL HARQ processes” already covers both PCell and SCells.
 - Samsung thinks that RRC would anyway take care of removing/adding HARQ entities depending on which SCells are added/removed.
 - Docomo point out that in Rel-8, when the UE goes to IDLE, we do not release the HARQ entity.
- ⇒ Noted.

Others

R2-104310 Implicit release for SPS HTC Disc

- Huawei asks what is the probability of having dynamic scheduling at the same time as SPS? Ericsson thinks that the eNB should be able to avoid such scheduling.
- ⇒ Noted (no support).

R2-104379 PUSCH and PUCCH for SR LG Electronics Inc. Disc

- Nokia asks if LGE intends to use SR even though new resources are granted. LGE confirms. Nokia then wonders what the benefit is since you can send your BSR. Ericsson agrees. LGE sees some added benefit.
 - Alcatel-Lucent thinks that when simultaneous PUCCH and PUSCH is not possible, Rel-8 behaviour should anyway be allowed. HT mMobile agrees.
 - ASUSTeK supports the proposal.
 - CATT thinks the probability of having retransmission and SR in the same TTI is low and the benefit of the proposal is therefore limited.
 - Docomo is not convinced that such an improvement is required and would even prefer avoiding simultaneous transmissions when not required.
- ⇒ Noted (no support).

- [R2-104311](#) Clarification on RAR grant and dynamic grant in one TTI HTC TP36.321 - - REL-10 LTE_CA-core
- Samsung does not see the need to change a note with a may statement. ASUSTeK & Qualcomm think such a clarification is useful.
 - Chairman asks if the clarification is technically correct. Samsung believes so.
- ⇒ clarification agreed and to be included in R2-105200.

RLC Status Report

Two issues:

- 1) *only one RLC status report is generated per TTI or multiple RLC status reports allowed?*
- 2) *if only one, in which SCell is it transmitted?*

- [R2-104736](#) Discussion on applicability of term "the total RLC PDU(s) size" in CA scenario Alcatel-lucent, Alcatel-Lucent Shanghai Bell Disc
- HTC supports the proposal.
 - Ericsson thinks no change is required as the current text is sufficient. Huawei and LGE agree.
 - Samsung asks what happens in case 3 grants are provided in the same TTI, are they combined? Ericsson believes that 3 transmission opportunities will be indicated to RLC by MAC. NSN and Qualcomm agree.
- ⇒ Noted (no change to RLC).

- [R2-104320](#) Status Reporting In CA SamsungDisc
- ⇒ Noted, covered by the previous discussion.

RLC Polling

Is the polling setting criteria checked when new RLC PDU is generated as in Rel-8/9 or only once per TTI i.e. do we allow more than one polling per TTI in case UL transmission occurs on more than one serving cell.

- [R2-104735](#) Consideration on polling in LTE-A CA scenario Alcatel-lucent, Alcatel-Lucent Shanghai Bell Disc
- Docomo wonders how multiple polling bits can be set when serial processing is assumed? And even if it happens, there's not really an issue. LGE shares Docomo's understanding.
- ⇒ Noted (no change to RLC).

Withdrawn

- [R2-104737](#) CR on applicability of term "the total RLC PDU(s) size" in CA scenario Alcatel-lucent, Alcatel-Lucent Shanghai Bell CR 36.322 (0093) - F REL-10 LTE_CA-core
Withdrawn

- [R2-104492](#) Details of configuration of secondary cells Nokia Corporation, Nokia Siemens NetworksDisc
withdrawn

Annex B: List of participants

The list of participants of this RAN WG2 meeting #71 is attached to this report.

Total number of participants: 190 (registered just before the meeting: 227).

Annex C: List of Tdocs

The list of Tdocs of this RAN WG2 meeting #71 is attached to this report.

Total number of Tdocs: 1049 (R2-104220 - R2-105269) of which 942 Tdocs are available, i.e. 107 are not provided.

Annex D: Incoming liaison statements for TSG RAN WG2 #71

RAN2 Tdoc	title (contact)	source	input	status	LS answer	additional comments
R2-104222	Concerning LTE Positioning Protocol	OMA LOC WG	OMA-LS_874- 20100701-A	noted	R2-105237	LS was not treated during RAN2 #70bis
R2-104223	Reply LS to S1-101239 on Access Control for CSFB (NTT DOCOMO)	CT1	C1-102893	noted	-	
R2-104224	Reply LS to R2-103453 on provision and use of CN Domain Identity for CSFB (RIM)	CT1	C1-102908	noted	-	to be addressed in UTRA session
R2-104225	LS on Draft RAN1 CRs for 4C-HSDPA (Qualcomm)	RAN1	R1-104242	noted	-	
R2-104226	LS on Support for different HS-SCCHs in contiguous TTIs in CELL_FACH (Ericsson)	RAN1	R1-104243	noted	R2-104941	
R2-104227	LS on RAN1's agreements on LCR TDD MC-HSUPA (CATT)	RAN1	R1-104258	noted	-	
R2-104228	LS on MBMS UE capability (Panasonic)	RAN1	R1-104261	noted	-	no LS answer but corresponding RAN2 CRs in R2-104938 and R2-104939
R2-104229	LS on Signaling of PDSCH Starting Position for Cross-CC Scheduling (NSN)	RAN1	R1-104267	noted	-	

RAN2 Tdoc	title (contact)	source	input	status	LS answer	additional comments
R2-104230	Reply to LS to R2-103449 on DL timing difference and DL timing reference in Carrier Aggregation (Ericsson)	RAN4	R4-102713	noted	-	
R2-104231	LS Reply on Location Information for MDT (NTT DOCOMO)	SA2	S2-103201	noted	-	
R2-104232	Follow on to LS response R2-104202 on support for Priority for terminating sessions for MPS (Telcordia)	SA2	S2-103205	noted	postponed	
R2-104233	LS on Enhancing the AS security (Qualcomm)	SA3	S3-100901	noted	R2-105204	
R2-104234	Reply LS to R3-101971 on OAM security and OAM connection issues of RN (NSN)	SA3	S3-100924	noted	-	
R2-104235	LS reply to R2-103451 on MDT configuration for IDLE mode UE (Alcatel-Lucent)	SA5	S5-102073	noted	-	
R2-104236	LS on MDT configuration for IDLE mode UE (NSN)	SA5	S5-102078	noted	R2-105227	
R2-104237	Consent of Recommendation G.9971 "Requirements of transport functions in IP home networks"	ITU-T SG15	ITU-T Study Group 15 LS 183	noted	-	
R2-104238	LS on "Mobile Wireless access systems providing telecommunications for a large number of ubiquitous sensors and/or actuators scattered over wide areas in the land mobile service" (Telecom Italia)	3GPP TSG RAN ITU-R Ad Hoc	RT-100054	noted	-	
R2-104239	Reply LS to R2-102666 on UE selection for MDT (Huawei)	SA5	S5-102044	noted	-	
R2-104240	Reply LS to R2-103461 on Location Information for MDT (Huawei)	SA5	S5-102074	noted	postponed	
R2-104241	LS on measurement frequency and collection period definitions for Logged MDT (NSN)	SA5	S5-102079	noted	postponed	
R2-104242	Reply LS to R2-104181 on SCell activation/deactivation (Nokia)	RAN4	R4-103351	noted	R2-104985	LS received on Tue during RAN2 #71
R2-104992	Reply LS to R2-104120 on Required Information from UE for 3G ANR (Nokia Siemens Networks)	RAN3	R3-102460	noted	-	LS received on Wed during RAN2 #71
R2-104996	LS on Relay Startup (Qualcomm)	RAN3	R3-102476	noted	-	LS received on Thu during RAN2 #71
R2-105203	LS on Access Delay estimation for RACH Optimization (Ericsson)	SA5	S5-102476	not treated	?	LS received on Thu during RAN2 #71
R2-105205	Reply LS to R2-104121 on 4C-HSDPA capabilities (Ericsson)	RAN4	R4-103179	noted	-	LS received on Thu during RAN2 #71
R2-105245	LS Response on Enabling Detected Set feature for Inter-Frequency Measurements	RAN4	R4-103420	noted	-	LS received on Fri during RAN2 #71; draft WID seen in UTRA session in R2-105112

postponed: LS answer was postponed to next RAN2 meeting (note: incoming LS will not be presented again at the next meeting and involved parties are requested to submit proposal for draft outgoing LS answer to next meeting).

Summary:

- In total: 26 LSs received for RAN2 #71: 10 related to LTE/E-UTRA, 6 related to UTRA, 10 related to joint aspects
- 1 resubmission from RAN2 #70bis:
 - R2-104222 = OMA-LS_874-20100701-A = R2-104197
- 6 of the 26 LSs received during RAN2 #71 meeting:
 - R2-104992 = R3-102460
 - R2-104996 = R3-102476
 - R2-105203 = S5-102476
 - R2-105205 = R4-103179
 - R2-105245 = R4-103420
- 25 noted; 1 LS not treated and it will be resubmitted to RAN2 #71bis:
 - R2-105203 = S5-102476

Annex E:

Outgoing liaison statements of TSG RAN WG2 #71

Only final outgoing LSs are listed here.

final LS Tdoc	title	to	cc	contact	reply to	release	WI	comments
R2-104941	Support for different HS-SCCHs in contiguous TTIs in CELL_FACH	RAN1, RAN3	-	Qualcomm	R1-104243 = R2-104226	REL-8	TEI8	
R2-104985	Power imbalance between adjacent component carriers	RAN4	RAN1	Nokia	R4-103351 = R2-104242	REL-10	LTE_CA-core	sent out on Wed of RAN2 #71
R2-105204	Enhancing the AS security	SA3	RAN3, SA5	Qualcomm	S3-100901 = R2-104233	REL-10	LTE_Relay-Core	
R2-105218	Enhanced 1xCs fallback support for dual Rx/Tx UE	SA2	-	Motorola	-	REL-10	TEI10, LTE-L23	
R2-105221	Enquiry of ongoing activity in Bluetooth SIG for interference avoidance to/from LTE in case of in-device coexistence	Bluetooth SIG CSWG	-	Samsung	-	REL-10	FS_SPIA_IDC	LS was sent to core-chair@bluetooth.org and CSWG chairman Joel Linsky: jlinsky@qualcomm.com
R2-105226	Considerations on counting for MBMS activation	RAN3, SA2	-	Huawei	-	REL-10	MBMS_LTE_enh-Core	
R2-105227	MDT configuration for IDLE mode UE	SA5	RAN3	NSN	S5-102078 = R2-104236	REL-10	MDT_UMTSLTE-Core	
R2-105229	MBR>GBR handling in the UE	SA2	-	Qualcomm	-	REL-10	TEI10, LTE-L23	
R2-105231	SRB only PS Handover	SA2, CT4	RAN3, RAN5	NSN		REL-9	TEI9, LTE-L23	
R2-105267	Interaction with Trace for MDT	SA5	-	Huawei	-	REL-10	MDT_UMTSLTE-Core	agreed by email
R2-105237	Concerning LTE Positioning Protocol	OMA LOC	-	Qualcomm	OMA-LS-874-20100701-A = R2-104222	REL-9	LCS_LTE	
R2-105247	Relay Node (RN) testing	RAN	RAN1, RAN3, RAN4, RAN5	Ericsson	-	REL-10	LTE_Relay-Core	agreed by email

Summary:

In total 12 outgoing LSs of RAN2 #71 (including 2 LSs agreed by email):
9 related to LTE/E-UTRA, 1 related to UTRA, 2 related to joint aspects.

Annex F:

List of agreed CRs for RAN #49

Overview of agreed RAN2 CRs submitted to RAN #49 (San Antonio): see also RP-100725

spec	REL-4	REL-5	REL-6	REL-7	REL-8	REL-9	REL-10	CRs	specs
25.302	0	0	0	1	1	1	1	4	4
25.304	0	0	0	0	1	3	0	4	2
25.305	0	0	0	0	0	0	1	1	1
25.306	0	0	0	0	1	2	1	4	3
25.308	0	0	0	1	1	1	1	4	4
25.319	0	0	0	0	0	0	1	1	1
25.321	0	0	0	2	5.	8.	1	16	4
25.323	0	0	0	0	0	1	0	1	1
25.331	0	0	0	6	14	21	27	68	4
34.109	0	0	0	0	0	1	0	1	1
36.300	0	0	0	0	0	5.	11.	16	2
36.304	0	0	0	0	1	4	0	5	2
36.305	0	0	0	0	0	2	0	2	1
36.306	0	0	0	0	0	1	0	1	1
36.322	0	0	0	0	0	1	0	1	1
36.331	0	0	0	0	3	14	0	17	2
36.355	0	0	0	0	0	9.	0	9	1
UTRA	0	0	0	10	23	38	33	104	25
LTE	0	0	0	0	4	36	11	51	10
total	0	0	0	10	27	74	44	155	35

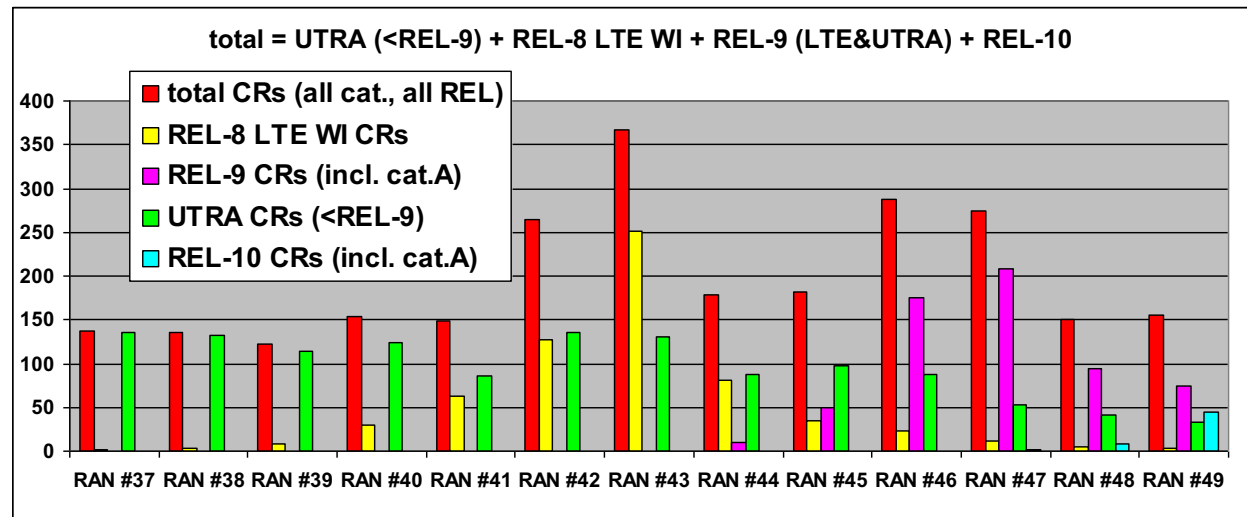


Figure E-1: RAN2 CRs submitted to the previous and the coming RAN plenary #49

The following table includes the RAN2 CRs submitted to RAN #49 in San Antonio:

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/WI	RAN2 Source	RAN Tdoc	RAN status	Remarks
25.302	0199	-	F	REL-7	R2-105113	Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD	RANimp-EnhState	Infineon Technologies	RP-100883	approved	
25.302	0200	-	A	REL-8	R2-105114	Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD	RANimp-EnhState	Infineon Technologies	RP-100883	approved	
25.302	0201	-	A	REL-9	R2-105115	Corrections to physical channel combinations for Enhanced CELL_FACH state for FDD	RANimp-EnhState	Infineon Technologies	RP-100883	approved	
25.302	0202	-	B	REL-10	R2-105139	Introduction of 4C-HSDPA for FDD	4C_HSDPA-Core	Infineon Technologies	RP-100863	approved	
25.304	0258	-	F	REL-9	R2-104243	Clarification on CSG autonomous search	EHNB-RAN2	NTT DOCOMO,INC, Telecom Italia	RP-100855	approved	
25.304	0259	1	F	REL-8	R2-105100	Triggering of absolute priority based reselection while common E-DCH allocated	RANimp-UplinkEnhState	Panasonic	RP-100849	approved	

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/WI	RAN2 Source	RAN Tdoc	RAN status	Remarks
25.304	0260	1	A	REL-9	R2-105101	Triggering of absolute priority based reselection while common E-DCH allocated	RANimp-UplinkEnhState	Panasonic	RP-100849	approved	
25.304	0261	-	C	REL-9	R2-105091	Correction to EUTRA Qqualmin handling in reselection from UTRA	TEI9, LTE-L23	Nokia Corporation, Nokia Siemens Networks	RP-100851	approved	
25.305	0119	1	C	REL-10	R2-105088	Support of RF Pattern Matching in UTRAN	LCS_UMTS_RFPMT-Core	Polaris Wireless, AT&T, Motorola, Alcatel-Lucent, Agilent, Thales Alenia, Andrew Corp., Stoke Inc., True Position	RP-100864	approved	
25.306	0271	-	F	REL-8	R2-105035	Clarification on the code rate restriction in HS-DSCH UE Categories 19	RANimp-64QamMimoHsdpa, RANimp-DCHSDPA	Alcatel-Lucent, Alcatel-Lucent Shanghai Bell	RP-100846	approved	
25.306	0272	-	A	REL-9	R2-105036	Clarification on the code rate restriction in HS-DSCH UE Categories 19	RANimp-64QamMimoHsdpa, RANimp-DCHSDPA	Alcatel-Lucent, Alcatel-Lucent Shanghai Bell	RP-100846	approved	
25.306	0273	-	F	REL-9	R2-105056	Clarification on the code rate restriction in HS-DSCH UE Categories 25 and 27	RANimp-DC_MIMO	Alcatel-Lucent, Alcatel-Lucent Shanghai Bell	RP-100857	approved	
25.306	0275	1	B	REL-10	R2-105262	Introduction of 4C-HSDPA categories	4C_HSDPA-Core	Nokia Corporation, Nokia Siemens Networks	RP-100863	approved	
25.308	0100	1	F	REL-7	R2-105133	Corrections to Enhanced CELL_FACH state for FDD	RANimp-EnhState	Infineon Technologies, Qualcomm Incorporated	RP-100883	approved	
25.308	0101	1	A	REL-8	R2-105134	Corrections to Enhanced CELL_FACH state for FDD	RANimp-EnhState	Infineon Technologies, Qualcomm Incorporated	RP-100883	approved	
25.308	0102	1	A	REL-9	R2-105135	Corrections to Enhanced CELL_FACH state for FDD	RANimp-EnhState	Infineon Technologies, Qualcomm Incorporated	RP-100883	approved	
25.308	0103	1	A	REL-10	R2-105136	Corrections to Enhanced CELL_FACH state for FDD	RANimp-EnhState	Infineon Technologies, Qualcomm Incorporated	RP-100883	revised	CR was based on wrong TS version; revised in company contribution RP-101000
25.308	0103	2	A	REL-10	-	Corrections to Enhanced CELL_FACH state for FDD	RANimp-EnhState	-	RP-101000	approved	company contribution to RP-49 replacing CR0103r1 (R2-105136) in RP-100883

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/WI	RAN2 Source	RAN Tdoc	RAN status	Remarks
25.319	0072	-	F	REL-10	R2-105063	Update of DC-HSUPA stage 2 description	4C_HSDPA-Core	Infineon Technologies	RP-100863	approved	
25.321	0676	-	F	REL-8	R2-104245	Clarification of the TCTF field encoding for 3.84 Mcps TDD IMB MBSFN	MBSFN-DOB	IPWireless Inc.	RP-100847	approved	
25.321	0677	-	A	REL-9	R2-104246	Clarification of the TCTF field encoding for 3.84 Mcps TDD IMB MBSFN	MBSFN-DOB	IPWireless Inc.	RP-100847	approved	
25.321	0678	-	D	REL-9	R2-104247	Clarification of primary uplink frequency and secondary uplink frequency	RANimp-DC_HSUPA	ZTE	RP-100858	approved	
25.321	0679	-	F	REL-9	R2-104248	Clarification on the DTX operation for DC-HSUPA	RANimp-DC_HSUPA	Huawei	RP-100858	approved	
25.321	0680	-	F	REL-9	R2-104249	Clarification to the CELL_DCH measurement occasion in MAC for 1.28Mcps TDD	TEI9	ZTE	RP-100859	approved	
25.321	0681	-	B	REL-10	R2-104250	Introduction of 4C-HSDPA in 25.321	4C_HSDPA-Core	Huawei	RP-100863	approved	
25.321	0682	-	F	REL-7	R2-105078	Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant	RANimp-16QamUplink	Infineon Technologies	RP-100843	approved	
25.321	0683	-	A	REL-8	R2-105079	Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant	RANimp-16QamUplink	Infineon Technologies	RP-100843	approved	
25.321	0684	-	A	REL-9	R2-105080	Corrections to Serving Grant Update procedure to support Absolute Grant value Zero_Grant	RANimp-16QamUplink	Infineon Technologies	RP-100843	approved	
25.321	0685	-	F	REL-8	R2-105102	Clarification on the use of timer T2 in Enhanced Uplink in CELL_FACH state and Idle mode for FDD	RANimp-UplinkEnhState	Infineon Technologies	RP-100849	approved	
25.321	0686	-	A	REL-9	R2-105103	Clarification on the use of timer T2 in Enhanced Uplink in CELL_FACH state and Idle mode for FDD	RANimp-UplinkEnhState	Infineon Technologies	RP-100849	approved	
25.321	0699	1	F	REL-8	R2-105123	Corrections for Enhanced Uplink in CELL_FACH state and idle mode	RANimp-UplinkEnhState	Nokia Corporation, Nokia Siemens Networks	RP-100849	approved	
25.321	0700	1	A	REL-9	R2-105124	Corrections for Enhanced Uplink in CELL_FACH state and idle mode	RANimp-UplinkEnhState	Nokia Corporation, Nokia Siemens Networks	RP-100849	approved	
25.321	0701	1	F	REL-7	R2-105263	State transition upon HS-DSCH reception in CELL_PCH state	RANimp-EnhState	Huawei	RP-100840	approved	
25.321	0702	1	A	REL-8	R2-105264	State transition upon HS-DSCH reception in CELL_PCH state	RANimp-EnhState	Huawei	RP-100840	approved	
25.321	0703	1	A	REL-9	R2-105265	State transition upon HS-DSCH reception in CELL_PCH state	RANimp-EnhState	Huawei	RP-100840	approved	
25.323	0320	1	F	REL-9	R2-105266	Clarification on PDCP CID field (Rel-9)	TEI9	Huawei	RP-100859	approved	

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/VI	RAN2 Source	RAN Tdoc	RAN status	Remarks
25.331	4191	-	F	REL-7	R2-104251	Incorrect inconsistency check on MAC-ehs reordering queue	TEI7	Panasonic	RP-100844	approved	
25.331	4192	-	A	REL-8	R2-104252	Incorrect inconsistency check on MAC-ehs reordering queue	TEI7	Panasonic	RP-100844	approved	
25.331	4193	-	A	REL-9	R2-104253	Incorrect inconsistency check on MAC-ehs reordering queue	TEI7	Panasonic	RP-100844	approved	
25.331	4194	-	A	REL-10	R2-104254	Incorrect inconsistency check on MAC-ehs reordering queue	TEI7	Panasonic	RP-100844	approved	
25.331	4198	-	D	REL-8	R2-104258	Correction to VAS updating	TEI8	Huawei	RP-100850	approved	
25.331	4199	-	A	REL-9	R2-104259	Correction to VAS updating	TEI8	Huawei	RP-100850	approved	
25.331	4200	-	A	REL-10	R2-104260	Correction to VAS updating	TEI8	Huawei	RP-100850	approved	
25.331	4201	-	D	REL-9	R2-104261	Clarification of primary uplink frequency and secondary uplink frequency	RANimp-DC_HSUPA	ZTE	RP-100858	approved	
25.331	4202	-	A	REL-10	R2-104262	Clarification of primary uplink frequency and secondary uplink frequency	RANimp-DC_HSUPA	ZTE	RP-100858	approved	
25.331	4205	1	F	REL-9	R2-105069	Correction to MIMO_STATUS and SECONDARY_CELL_MIMO_STAT US setting for Single Stream MIMO	RANimp-TxAA_nonMIMO	Nokia Siemens Networks, Nokia Corporation	RP-100856	approved	
25.331	4206	-	A	REL-10	R2-104266	Correction to MIMO_STATUS and SECONDARY_CELL_MIMO_STAT US setting for Single Stream MIMO	RANimp-TxAA_nonMIMO	Nokia Siemens Networks, Nokia Corporation	RP-100856	approved	
25.331	4207	-	B	REL-10	R2-104267	Introduction of Rel-10 access stratum release indicator	TEI10	Ericsson, ST-Ericsson	RP-100862	approved	
25.331	4215	-	F	REL-8	R2-105008	Correction to RRC Signaling of S-CPICH power offset for MIMO UEs	MIMO-L23	Huawei	RP-100842	approved	
25.331	4216	-	F	REL-8	R2-105073	Correction to missing ASN.1 for MIMO parameters	MIMO-L23	Huawei	RP-100842	approved	
25.331	4217	-	A	REL-9	R2-105089	Correction to missing ASN.1 for MIMO parameters	MIMO-L23	Huawei	RP-100842	approved	
25.331	4218	-	A	REL-10	R2-105090	Correction to missing ASN.1 for MIMO parameters	MIMO-L23	Huawei	RP-100842	approved	
25.331	4219	-	F	REL-8	R2-105044	Correction to deferred SIB11 reading	TEI8	Huawei	RP-100850	approved	
25.331	4220	-	A	REL-9	R2-105045	Correction to deferred SIB11 reading	TEI8	Huawei	RP-100850	approved	
25.331	4221	-	A	REL-10	R2-105046	Correction to deferred SIB11 reading	TEI8	Huawei	RP-100850	approved	
25.331	4222	-	C	REL-9	R2-105061	Pre-redirection info setting after the redirection/CSFB from E-UTRA	TEI9	NTT DOCOMO, INC.	RP-100859	approved	
25.331	4223	-	A	REL-10	R2-105062	Pre-redirection info setting after the redirection/CSFB from E-UTRA	TEI9	NTT DOCOMO, INC.	RP-100859	approved	
25.331	4237	-	F	REL-7	R2-105017	Flexible RLC only applies to user RB, not SRB	RANimp-L2dataRates	Qualcomm Incorporated	RP-100841	approved	
25.331	4238	1	A	REL-8	R2-105137	Flexible RLC only applies to user RB, not SRB	RANimp-L2dataRates	Qualcomm Incorporated	RP-100841	approved	

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/WI	RAN2 Source	RAN Tdoc	RAN status	Remarks
25.331	4239	-	A	REL-9	R2-105019	Flexible RLC only applies to user RB, not SRB	RANimp-L2dataRates	Qualcomm Incorporated	RP-100841	approved	
25.331	4240	-	A	REL-10	R2-105020	Flexible RLC only applies to user RB, not SRB	RANimp-L2dataRates	Qualcomm Incorporated	RP-100841	approved	
25.331	4242	-	F	REL-7	R2-105119	LI size for CCCH(SRB#0) in enhanced CELL_FACH operation	RANimp-EnhState	Qualcomm Incorporated	RP-100883	approved	
25.331	4243	1	A	REL-8	R2-105138	LI size for CCCH(SRB#0) in enhanced CELL_FACH operation	RANimp-EnhState	Qualcomm Incorporated	RP-100883	approved	
25.331	4244	-	A	REL-9	R2-105121	LI size for CCCH(SRB#0) in enhanced CELL_FACH operation	RANimp-EnhState	Qualcomm Incorporated	RP-100883	approved	
25.331	4245	-	A	REL-10	R2-105122	LI size for CCCH(SRB#0) in enhanced CELL_FACH operation	RANimp-EnhState	Qualcomm Incorporated	RP-100883	approved	
25.331	4250	1	B	REL-10	R2-105116	Small Technical Enhancements and Improvements for GNSS	TEI10	Qualcomm Incorporated	RP-100910	approved	
25.331	4251	1	B	REL-10	R2-105128	Introduction of 4C-HSDPA in 25.331	4C_HSDPA-Core	Qualcomm Incorporated	RP-100863	approved	
25.331	4258	-	C	REL-9	R2-105059	Update of virtual active set handling for inter-frequency CSG measurements	EHNB-RAN2	Nokia Corporation, Nokia Siemens Networks, Ericsson, ST-Ericsson	RP-100855	approved	
25.331	4259	-	A	REL-10	R2-105060	Update of virtual active set handling for inter-frequency CSG measurements	EHNB-RAN2	Nokia Corporation, Nokia Siemens Networks, Ericsson, ST-Ericsson	RP-100855	approved	
25.331	4269	-	A	REL-8	R2-105014	Correction to default radio configuration #20	TEI7	ZTE	RP-100844	approved	
25.331	4270	-	A	REL-9	R2-105015	Correction to default radio configuration #20	TEI7	ZTE	RP-100844	approved	
25.331	4271	-	A	REL-10	R2-105016	Correction to default radio configuration #20	TEI7	ZTE	RP-100844	approved	
25.331	4272	-	F	REL-7	R2-104954	Clarifications to the intra-frequency measurement event for 1.28Mcps TDD	TEI7	ZTE	RP-100844	approved	
25.331	4273	-	A	REL-8	R2-104955	Clarifications to the intra-frequency measurement event for 1.28Mcps TDD	TEI7	ZTE	RP-100844	approved	
25.331	4274	-	A	REL-9	R2-104956	Clarifications to the intra-frequency measurement event for 1.28Mcps TDD	TEI7	ZTE	RP-100844	approved	
25.331	4275	-	A	REL-10	R2-104957	Clarifications to the intra-frequency measurement event for 1.28Mcps TDD	TEI7	ZTE	RP-100844	approved	
25.331	4279	-	F	REL-7	R2-105013	Correction to default radio configuration #20	TEI7	ZTE	RP-100844	approved	

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/WI	RAN2 Source	RAN Tdoc	RAN status	Remarks
25.331	4285	1	F	REL-9	R2-105125	Correction to the state of the secondary uplink frequency in case of hard handover	RANimp-DC_HSUPA	Huawei	RP-100858	approved	
25.331	4286	1	A	REL-10	R2-105126	Correction to the state of the secondary uplink frequency in case of hard handover	RANimp-DC_HSUPA	Huawei	RP-100858	approved	
25.331	4287	1	C	REL-8	R2-105130	Explicit HARQ Memory partitioning for dual cell operation	RANimp-DCHSDPA	Qualcomm Incorporated	RP-100846	approved	
25.331	4288	1	A	REL-9	R2-105131	Explicit HARQ Memory partitioning for dual cell operation	RANimp-DCHSDPA	Qualcomm Incorporated	RP-100846	approved	
25.331	4289	1	A	REL-10	R2-105132	Explicit HARQ Memory partitioning for dual cell operation	RANimp-DCHSDPA	Qualcomm Incorporated	RP-100846	approved	
25.331	4292	-	D	REL-10	R2-105048	Editorial Corrections to 25.331	TEI10	Qualcomm Incorporated	RP-100862	approved	
25.331	4293	-	F	REL-8	R2-105049	Correction to default configuration #23	TEI8	Nokia Siemens Networks, Nokia Corporation, NTT DOCOMO	RP-100850	approved	
25.331	4294	-	A	REL-9	R2-105050	Correction to default configuration #23	TEI8	Nokia Siemens Networks, Nokia Corporation, NTT DOCOMO	RP-100850	approved	
25.331	4295	-	A	REL-10	R2-105051	Correction to default configuration #23	TEI8	Nokia Siemens Networks, Nokia Corporation, NTT DOCOMO	RP-100850	approved	
25.331	4296	2	B	REL-10	R2-105129	UE supported Frequency band indicator for redirection in RRC CONNECTION REQUEST	TEI10	Nokia Siemens Networks, Nokia Corporation, Deutsche Telekom, NTT DOCOMO, CMCC, ZTE, CATT, TD-Tech	RP-100862	approved	
25.331	4298	-	F	REL-7	R2-105009	Clarification of when to clear IE Precoding weight set restriction" from MIMO_PARAMS"	MIMO-L23	Alcatel-Lucent	RP-100842	approved	
25.331	4299	-	A	REL-8	R2-105010	Clarification of when to clear IE Precoding weight set restriction" from MIMO_PARAMS"	MIMO-L23	Alcatel-Lucent	RP-100842	approved	
25.331	4300	-	A	REL-9	R2-105011	Clarification of when to clear IE Precoding weight set restriction" from MIMO_PARAMS"	MIMO-L23	Alcatel-Lucent	RP-100842	approved	
25.331	4301	-	A	REL-10	R2-105012	Clarification of when to clear IE Precoding weight set restriction" from MIMO_PARAMS"	MIMO-L23	Alcatel-Lucent	RP-100842	approved	
25.331	4305	-	D	REL-10	R2-105038	Editorial changes for MIMO and storing of E-RGCH information	TEI10	Alcatel-Lucent	RP-100862	approved	

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/WI	RAN2 Source	RAN Tdoc	RAN status	Remarks
25.331	4308	-	F	REL-10	R2-105108	Use of Navigational Model Additional data	TEI10	Research In Motion UK Limited	RP-100862	approved	
25.331	4309	-	F	REL-8	R2-105041	Security procedures for intra-UTRAN SR-VCC	RANimp-HSPAVoIP	Nokia Corporation, Nokia Siemens Networks	RP-100848	approved	
25.331	4310	-	A	REL-9	R2-105042	Security procedures for intra-UTRAN SR-VCC	RANimp-HSPAVoIP	Nokia Corporation, Nokia Siemens Networks	RP-100848	approved	
25.331	4311	1	A	REL-10	R2-105099	Security procedures for intra-UTRAN SR-VCC	RANimp-HSPAVoIP	Nokia Corporation, Nokia Siemens Networks	RP-100848	approved	
25.331	4314	1	F	REL-9	R2-105235	Clarification of FGI setting for inter-RAT features not supported by the UE	TEI9, LTE-L23	NTT DOCOMO, INC.	RP-100851	approved	
25.331	4315	1	A	REL-10	R2-105236	Clarification of FGI setting for inter-RAT features not supported by the UE	TEI9, LTE-L23	NTT DOCOMO, INC.	RP-100851	approved	
25.331	4317	-	F	REL-9	R2-104945	Removal of SRB only PS handover	TEI9, LTE-L23	Nokia Siemens Networks	RP-100851	approved	
25.331	4318	1	A	REL-10	R2-105228	Removal of SRB only PS handover	TEI9, LTE-L23	Nokia Siemens Networks	RP-100851	approved	
25.331	4321	-	C	REL-9	R2-105074	Introduction of system information container indication	TEI9	Nokia, NSN, NTT DoCoMo, Panasonic	RP-100859	approved	
25.331	4322	-	A	REL-10	R2-105075	Introduction of system information container indication	TEI9	Nokia, NSN, NTT DoCoMo, Panasonic	RP-100859	approved	
25.331	4323	2	F	REL-8	R2-105117	Correction of the DC-HSDPA procedures	RANimp-DCHSDPA	Qualcomm Incorporated	RP-100846	approved	
25.331	4324	1	A	REL-9	R2-105118	Correction of the DC-HSDPA procedures	RANimp-DCHSDPA	Qualcomm Incorporated	RP-100846	approved	
34.109	0044	-	F	REL-9	R2-105248	Addition of RESET command for GNSS (contact: Qualcomm)	AGNSSTest UTRAN	RAN5	RP-100861	approved	
36.300	0248	4	B	REL-10	R2-105268	Corrections and new Agreements on Carrier Aggregation	LTE_CA-core	Nokia Siemens Networks (Rapporteur)	RP-100865	approved	
36.300	0249	1	C	REL-10	R2-104998	36.300 CR for stage 2 RAN #70bis and #71 agreements of relaying	LTE_Relay-Core	Ericsson, ST-Ericsson	RP-100866	approved	
36.300	0254	1	F	REL-9	R2-105216	CSFB summary	TEI9, LTE-L23	Nokia Siemens Networks	RP-100851	approved	cat.A CR was forgotten at R2-71 and it is provided in RP-100882 as company contribution to RP-49
36.300	0255	-	B	REL-10	R2-105202	Start-up procedure for relays	LTE_Relay-Core	Qualcomm	RP-100866	approved	based on RAN3 CR (see LS R2-104996)
36.300	0256	-	F	REL-9	R2-105249	Keeping neighbouring eNBs up-to-date with complete list of served cells (contact: NSN)	TEI9, LTE-L23	RAN3	RP-100851	approved	

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/VI	RAN2 Source	RAN Tdoc	RAN status	Remarks
36.300	0257	-	A	REL-10	R2-105250	Keeping neighbouring eNBs up-to-date with complete list of served cells (contact: NSN)	TEI9, LTE-L23	RAN3	RP-100851	approved	
36.300	0258	-	F	REL-9	R2-105251	Description of Energy Saving mechanisms (contact: Ericsson)	TEI9, LTE-L23	RAN3	RP-100851	approved	
36.300	0259	-	A	REL-10	R2-105252	Description of Energy Saving mechanisms (contact: Ericsson)	TEI9, LTE-L23	RAN3	RP-100851	approved	
36.300	0260	-	B	REL-10	R2-105253	Handover request routing toward RN (contact: Huawei)	LTE_Relay-Core	RAN3	RP-100866	approved	
36.300	0261	-	F	REL-9	R2-105254	MBMS Session Update procedure (contact: Motorola)	MBMS_LTE	RAN3	RP-100853	approved	
36.300	0262	-	A	REL-10	R2-105255	MBMS Session Update procedure (contact: Motorola)	MBMS_LTE	RAN3	RP-100853	approved	
36.300	0263	-	F	REL-9	R2-105256	CS Fallback Indication and Handover Restriction List (contact: NEC)	TEI9, LTE-interfaces	RAN3	RP-100860	approved	
36.300	0264	-	A	REL-10	R2-105257	CS Fallback Indication and Handover Restriction List (contact: NEC)	TEI9, LTE-interfaces	RAN3	RP-100860	approved	
36.300	0265	-	B	REL-10	R2-105258	X2-AP non UE dedicated messages handling (contact: Huawei)	LTE_Relay-Core	RAN3	RP-100866	approved	
36.300	0266	-	B	REL-10	R2-105259	Detach procedure for relays (contact: NTT DOCOMO)	LTE_Relay-Core	RAN3	RP-100866	approved	
36.300	0267	1	B	REL-10	R2-105261	RN and DeNB OAMs should be able to exchange info (contact: Ericsson)	LTE_Relay-Core	RAN3	RP-100866	approved	
36.300	0268	-	A	REL-10	-	CSFB summary	TEI9, LTE-L23	-	RP-100882	approved	company contribution to RP-49, related to CR0254r1 (R2-105216) in RP-100851
36.304	0134	-	F	REL-9	R2-104270	Clarification on CSG autonomous search	EHNB-RAN2	NTT DOCOMO,INC., Telecom Italia	RP-100855	approved	
36.304	0136	1	F	REL-9	R2-105232	Clarifications Regarding Redirection from LTE	TEI9, LTE-L23	Nokia Corporation, Nokia Siemens Networks, Vodafone	RP-100851	approved	
36.304	0137	-	F	REL-8	R2-104967	Correct the PEMAX_H to PEMAX	LTE-L23	CATT	RP-100845	approved	
36.304	0138	-	A	REL-9	R2-104968	Correct the PEMAX_H to PEMAX	LTE-L23	CATT	RP-100845	approved	
36.304	0139	1	F	REL-9	R2-105222	Clarification on the use of RSRQ for cell reselection towards GERAN or CDMA	TEI9, LTE-L23	Alcatel-Lucent, Verizon, Ericsson, ST-Ericsson, KDDI, Motorola, Nokia, Nokia Siemens Networks, Qualcomm Incorporated, Vodafone	RP-100851	approved	

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/WI	RAN2 Source	RAN Tdoc	RAN status	Remarks
36.305	0018	-	F	REL-9	R2-104271	Corrections on LPP session identifier in Stage 2	LCS_LTE	HTC	RP-100852	approved	
36.305	0019	-	F	REL-9	R2-104976	Clarifications to LPP transferred information	LCS_LTE	HTC	RP-100852	approved	
36.306	0035	-	F	REL-9	R2-104939	Clarification of MBMS UE capability	MBMS_LTE	Panasonic	RP-100853	approved	
36.322	0092	1	F	REL-9	R2-104978	Miscellaneous corrections to RLC	TEI9, LTE-L23	ASUSTeK	RP-100851	approved	
36.331	0439	-	F	REL-8	R2-104273	Correction to 3GPP2 reference for interworking with cdma2000 1x	LTE-L23	Motorola, QUALCOMM Incorporated	RP-100845	approved	
36.331	0440	-	F	REL-9	R2-104274	Correction to 3GPP2 reference for interworking with cdma2000 1x	LTE-L23	Motorola, QUALCOMM Incorporated	RP-100845	approved	
36.331	0441	-	F	REL-9	R2-104275	Clarification on UL handover preparation transfer	TEI9, LTE-L23	HTC	RP-100851	approved	
36.331	0442	1	F	REL-9	R2-104979	Clarifications regarding fullConfiguration	TEI9, LTE-L23	Samsung, ZTE	RP-100851	approved	
36.331	0443	-	F	REL-9	R2-104277	Clarifications regarding handover to E-UTRAN	TEI9, LTE-L23	Samsung, HTC	RP-100851	approved	
36.331	0444	-	F	REL-9	R2-104278	Correction on the table of conditionally mandatory Release 9 features	TEI9, LTE-L23, SSAC	NTT DOCOMO INC,	RP-100854	approved	
36.331	0445	-	F	REL-9	R2-104279	Corrections to TS36.331 on MeasConfig IE	TEI9, LTE-L23	Huawei	RP-100851	approved	
36.331	0446	2	F	REL-9	R2-104989	CR to 36.331 on clarification for MBMS PTM RBs	MBMS_LTE	ASUSTeK	RP-100853	approved	
36.331	0447	-	F	REL-9	R2-104281	Introduction of late corrections container for E-UTRA UE capabilities	TEI9, LTE-L23	Samsung, Panasonic	RP-100851	approved	
36.331	0448	-	F	REL-9	R2-104282	Renaming of containers for late non-critical extensions	TEI9, LTE-L23	Samsung	RP-100851	approved	
36.331	0452	-	F	REL-9	R2-104943	Clarifications Regarding Redirection from LTE	TEI9, LTE-L23	Nokia Corporation, Nokia Siemens Networks, Vodafone	RP-100851	approved	
36.331	0453	-	F	REL-8	R2-104965	Description of multi-user MIMO functionality in feature group indicator table	LTE-L23	Panasonic	RP-100845	approved	
36.331	0456	-	A	REL-9	R2-104966	Description of multi-user MIMO functionality in feature group indicator table	LTE-L23	Panasonic	RP-100845	approved	
36.331	0457	-	F	REL-8	R2-104969	Correct the PEMAX_H to PEMAX	LTE-L23	CATT	RP-100845	approved	
36.331	0458	-	A	REL-9	R2-104970	Correct the PEMAX_H to PEMAX	LTE-L23	CATT	RP-100845	approved	
36.331	0460	-	F	REL-9	R2-104980	Clarification for feature group indicator bit 11	TEI9, LTE-L23	Motorola, QUALCOMM Incorporated	RP-100851	approved	

Spec	CR #	rev	cat	REL	RAN2 Tdoc	Title	SI/VI	RAN2 Source	RAN Tdoc	RAN status	Remarks
36.331	0465	1	F	REL-9	R2-105234	Clarification of FGI setting for inter-RAT features not supported by the UE	TEI9, LTE-L23	NTT DOCOMO, INC.	RP-100851	approved	
36.331	0473	-	F	REL-9	-	Clarification of the meaning of FGI bit 1 and bit 2 for Rel-9	TEI9, LTE-L23	-	RP-100929	revised	company contribution to RP-49; revised in RP-100949
36.331	0473	1	F	REL-9	-	Clarification of the meaning of FGI bit 1 and bit 2 for Rel-9	TEI9, LTE-L23	-	RP-100949	withdrawn	company contribution to RP-49; revision of RP-100929
36.331	0474	-	F	REL-9	-	FGI settings in Rel-9	TEI9, LTE-L23	-	RP-100943	revised	company contribution to RP-49; revised in RP-100948
36.331	0474	1	F	REL-9	-	FGI bits related to CDMA2000 in Rel-9	TEI9, LTE-L23	-	RP-100948	withdrawn	company contribution to RP-49; revision of RP-100943
36.331	0475	-	F	REL-9	-	FGI settings in Rel-9	TEI9, LTE-L23	-	RP-100947	revised	company contribution to RP-49; revised in RP-101008
36.331	0475	1	F	REL-9	-	FGI settings in Rel-9	TEI9, LTE-L23	-	RP-101008	approved	company contribution to RP-49; revision of RP-100947
36.355	0024	-	F	REL-9	R2-104283	Addition of an EPDU to an LPP Error and LPP Abort	LCS_LTE	Qualcomm Incorporated	RP-100852	approved	
36.355	0026	-	F	REL-9	R2-104285	Division of LPP into Separate ASN.1 Modules with a Global Identifier	LCS_LTE	Qualcomm Incorporated	RP-100852	approved	
36.355	0028	-	F	REL-9	R2-104287	Proposed Corrections to LPP Reliable Transport	LCS_LTE	Qualcomm Incorporated	RP-100852	approved	
36.355	0029	-	F	REL-9	R2-104288	Proposed Corrections to the PeriodicalReportingCriteria in LPP	LCS_LTE	Qualcomm Incorporated	RP-100852	approved	
36.355	0030	1	F	REL-9	R2-104972	Various corrections and clarifications to LPP	LCS_LTE	Qualcomm Incorporated	RP-100852	approved	
36.355	0031	-	F	REL-9	R2-104973	Support of functional components for LPP reliable transport	LCS_LTE	Qualcomm Incorporated	RP-100852	approved	
36.355	0032	1	F	REL-9	R2-105269	Introduction of EPDU ID requested by OMA LOC	LCS_LTE	Qualcomm Incorporated	RP-100852	approved	
36.355	0035	1	F	REL-9	R2-105219	Several corrections in LPP	LCS_LTE	Ericsson, ST-Ericsson	RP-100852	approved	
36.355	0036	-	F	REL-9	R2-104990	Clarification to Assistance Data Transfer Procedure	LCS_LTE	HTC	RP-100852	approved	

Rows highlighted in yellow indicate company contributions treated at RAN #49 for which no Tdoc was submitted to RAN2.

This table has 163 rows:

- 155 agreed CRs to RAN2 specs, 154 of them approved, 1 of these CRs (R2-105136) was revised at RAN #49 in a company contribution (RP-101000).
- 8 company contributions of which 3 were approved by RAN #49:

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- 25.308 REL-10 cat.A CR RP-101000 which is a revision of the RAN2 #71 agreed CR R2-105136 which was based on the wrong TS version.
- 36.300 REL-10 cat.A CR RP-100882 since the cat.A CR was forgotten when the REL-9 cat.F CR R2-105216 was agreed by RAN2 #71.
- 36.331 REL-9 cat. F CR RP-101008 on "FGI settings in Rel-9"

So finally: Approved RAN2 CRs after RAN #49:

spec	REL-4	REL-5	REL-6	REL-7	REL-8	REL-9	REL-10	CRs	specs	rapporteur	email
25.302	0	0	0	1	1	1	1	4	4	Nicola Puddle (Alcatel-Lucent)	puddle@alcatel-lucent.com
25.304	0	0	0	0	1	3	0	4	2	Brian Martin (Nokia)	brian.2.martin@nokia.com
25.305	0	0	0	0	0	0	1	1	1	Simone Proveddi (Ericsson)	simone.proveddi@ericsson.com
25.306	0	0	0	0	1	2	1	4	3	Anders Berggren (ST Ericsson)	anders.y.berggren@stericsson.com
25.308	0	0	0	1	1	1	1	4	4	Ravi Kuchibhotla (Motorola)	Ravi.Kuchibhotla@motorola.com
25.319	0	0	0	0	0	0	1	1	1	Kundan Kumar Lucky (Samsung)	kklucky@samsung.com
25.321	0	0	0	2	5.	8.	1	16	4	He Jing (Nokia Siemens Networks)	he.jing@nsn.com
25.323	0	0	0	0	0	1	0	1	1	Martin Hans (Infineon)	Martin.Hans@infineon.com
25.331	0	0	0	6	14	21	27	68	4	Kai-Erik Sunell (Ericsson) ASN.1: Brian Martin (Nokia)	kai-erik.sunell@ericsson.com brian.2.martin@nokia.com
34.109	0	0	0	0	0	1	0	1	1	Anders Berggren (ST Ericsson)	anders.y.berggren@stericsson.com
36.300	0	0	0	0	0	5.	12.	17	2	Benoist Sebire (Nokia Siemens Networks)	benoist.sebire@nsn.com
36.304	0	0	0	0	1	4	0	5	2	Jarkko Koskela (Nokia)	jarkko.t.koskela@nokia.com
36.305	0	0	0	0	0	2	0	2	1	Nathan Tenny (Qualcomm)	ntenny@qualcomm.com
36.306	0	0	0	0	0	1	0	1	1	Ravi Kuchibhotla (Motorola)	Ravi.Kuchibhotla@motorola.com
36.322	0	0	0	0	0	1	0	1	1	Anil Umesh (NTT DoCoMo)	umesyu@nttdocomo.co.jp
36.331	0	0	0	0	3	15	0	18	2	Himke van der Velde (Samsung)	himke.vandervelde@samsung.com
36.355	0	0	0	0	0	9.	0	9	1	Nathan Tenny (Qualcomm)	ntenny@qualcomm.com
UTRA	0	0	0	10	23	38	33	104	25		
LTE	0	0	0	0	4	37	12	53	10		
total	0	0	0	10	27	75	45	157	35		

Annex G: RAN WG2 meeting #71 post processing

Email discussions/approvals

Rapporteur companies are requested to kick-off email discussions as soon as possible via the RAN2 email reflector. **Important:** In the beginning of the subject of each email the corresponding identifier [...] of the email discussion has to be used in order to allow sorting of the different email discussions.

RAN2 chairman: Note that in order to meet the deadline for an email discussion, documents should be provided with sufficient time to review the final version.
I.e. an “almost final version” should be available 24 hours before the deadline.

Email discussions with deadline Friday 03.09.2010 midnight Pacific time:

Note: Earlier deadline mostly because of required submission to RAN.

[71#01] UMTS/LTE: Conditions for ProximityIndication and SI-AcquisitionForHO capabilities (R2-105224, R2-105225) [NTT DCM]

- Can try to reach agreements for both LTE and UMTS whether there are conditions under which supporting these capabilities would be mandatory. If so, should also discuss how to best capture this mandatoriness

=> Expected output: Agreement of LTE and UMTS CRs in:

R2-105239 36.306 CR0034r1 REL-9 (revision of R2-105224)
R2-105240 36.331 CR0472r1 REL-9 (revision of R2-105225)
R2-105241 25.306 CR0276 REL-9
R2-105242 25.331 CR4326 REL-9
R2-105243 25.331 CR4327 REL-10

conclusion: Email discussion was kicked off by Mikio Iwamura (NTT DOCOMO) on 29.08.2010.
On 04.09.2010 all 5 CRs R2-105239-R2-105243 were withdrawn as it was not possible to reach consensus by this time. Topic can be further discussed under [71#01] until RAN2 #71bis and company contributions could be considered to RAN #49.

[71#02] UMTS/LTE: MDT - Outgoing SA5 LS on interaction with trace (R2-104960) [Huawei]

- To be updated in accordance with comments received during RAN2#71

=> Expected output: Agreed LS in R2-105233

conclusion: Email discussion was kicked off by Shukun Wang (Huawei) on 31.08.2010.
Final LS was agreed in R2-105267 on 04.09.2010 (revision was needed as source field in R2-105233 was wrong).

[71#03] UMTS/LTE: MDT - Stage-2 update reflecting decisions from this meeting (R2-104950) [NSN]

- E.g. inclusion of missing parts in the stage-2 (e.g. states/no paging)

=> Expected output: Agreed TS 37.320 v1.0.0 in R2-105238 (for submission to RAN for information)

conclusion: Email discussion was kicked off by Malgorzata Tomala (NSN) on 30.08.2010.
TS 37.320 v1.0.0 was agreed on 04.09.2010 in R2-105238.

[71#04] UMTS/LTE: MTC - Stage-2 update reflecting decisions from this meeting [Huawei]

- E.g. add missing parts (R2-104999) and handle comments on pulling approach

=> Expected output: Agreed TR 37.868 v0.6.0 in R2-105246

conclusion: Email discussion was kicked off by Ma Hui (Huawei) on 31.08.2010.
TR 37.868 v0.6.0 was agreed in R2-105246 on 04.09.2010.

[71#05] UMTS: Introduction of 4C-HSDPA categories in 25.306 (R2-105064) [Nokia]

=> Expected output: Agreed CR to 25.306 in R2-105262

conclusion: Email discussion was kicked off by Keiichi Kubota (Nokia) on 31.08.2010.
25.306 CR R2-105262 was agreed on 04.09.2010.

[71#06] UMTS: Introduction of 4C-HSDPA for FDD in 25.302 (R2-104390) [Infineon]

- conclusion: => Expected output: Agreed CR to 25.302 in R2-105139
Email discussion was kicked off by Hyung-Nam Choi (Infineon) on 30.08.2010.
25.302 CR R2-105139 was agreed on 04.09.2010.
- [71#07] UMTS: Introduction of 4C-HSDPA for FDD in 25.331 (R2-105070) [QC]
conclusion: => Expected output: Agreed CR to 25.331 in R2-105128 R1
Email discussion was kicked off by Aziz Gholmieh (Qualcomm) on 29.08.2010.
25.331 CR R2-105128 was agreed on 04.09.2010.
- [71#08] UMTS: Small Technical Enhancements and Improvements for GNSS (R2-105107) [QC]
conclusion: => Expected output: Agreed CR to 25.331 in R2-105116 R1
Email discussion was kicked off by Sven Fischer (Qualcomm) on 30.08.2010.
25.331 CR R2-105116 was agreed on 04.09.2010.
- [71#09] UMTS: Corrections to Enhanced CELL_FACH state for FDD [Infineon]
- Related to R2-105021/R2-105022/R2-105023/R2-105024
conclusion: => Expected output: Agreed CRs to 25.308 in R2-105133/R2-105134/R2-105135/R2-105136 (all Rev1)
Email discussion was kicked off by Hyung-Nam Choi (Infineon) on 30.08.2010.
25.308 CRs R2-105133/R2-105134/R2-105135/R2-105136 were agreed on 04.09.2010.
- [71#10] UMTS: State transition upon HS-DSCH reception in CELL_PCH state [Huawei]
- Related to 25.321 CRs: R2-105031/R2-105032/R2-105033
conclusion: => Expected output: Agreed CRs to 25.321 in R2-105263/R2-105264/R2-105265 all R1
Email discussion was kicked off by Jeff Gao (Huawei) on 31.08.2010.
25.321 CRs R2-105263/R2-105264/R2-105265 were agreed on 04.09.2010.
- [71#11] LTE: Relays - LS to RAN on RN-testing (R2-105213) [Ericsson]
conclusion: => Expected output: Agreed LS in R2-105247
Email discussion was kicked off by Jessica Östergaard (Ericsson) on 30.08.2010.
Final LS was agreed in R2-105247 on 04.09.2010
- [71#12] LTE: Relays - 36.300 CR [Ericsson]
- Update of R2-104269 to capture agreements from RAN2#71
- Note updated deadline (2 weeks will not enable RAN2 submission to RAN) !!
conclusion: => Expected output: Agreed 36.300 CR0249 R1 in R2-104998
Email discussion was kicked off by Jessica Östergaard (Ericsson) on 30.08.2010.
36.300 CR R2-104998 was agreed on 04.09.2010.

Email discussions with deadline Friday 10.09.2010 midnight Pacific time:

- [71#20] LTE: CA - 36.331 baseline carrier aggregation CR [Samsung]
conclusion: => Expected output: Endorsed non-contentious updated running CR in R2-104991 to be used as baseline for further work (CR will not be provided to RAN #49)
Email discussion was kicked off by Himke van der Velde (Samsung) on 31.08.2010.
R2-104991 was endorsed on 14.09.2010.
- [71#21] LTE: MBMS - 36.300 baseline MBMS CR [Huawei]
conclusion: => Expected output: Endorsed non-contentious updated running CR in R2-104993 to be used as baseline for further work (CR will not be provided to RAN #49)
Email discussion was kicked off by Junhui Zhao (Huawei) on 31.08.2010.
R2-104993 was endorsed on 13.09.2010.

Email discussions with deadline Friday 17.09.2010 midnight Pacific time:

- [71#30] LTE: Relays - 36.331 baseline CR [Ericsson]
conclusion: => Expected output: Endorsed non-contentious updated running CR in R2-105207 to be used as baseline for further work (CR will not be provided to RAN #49)
Email discussion was kicked off by Prabakaran Kanesalingam (Ericsson) on 01.09.2010.
R2-105207 was endorsed on 17.09.2010.
- [71#31] LTE: Relays - 36.321 baseline CR [Ericsson]

=> Expected output: Endorsed non-contentious updated running CR in R2-105210 to be used as baseline for further work (CR will not be provided to RAN #49)
conclusion: Email discussion was kicked off by Jessica Östergaard (Ericsson) on 01.09.2010.
R2-105210 was endorsed on 17.09.2010.

[71#32] LTE: ICO - In-Device Coexistence TR update [CMCC]

- Inclusion of introductory aspects according to RAN2#71 agreements in TR
=> Expected output: Endorsed TR 36.816 update in R2-105214 v0.1.1. (should be resubmitted to RAN2#71bis for final RAN2 agreement)
conclusion: Email discussion was kicked off by Hu Zhenping (CMCC) on 02.09.2010.
R2-105214 TR 36.816 v0.1.1 was provided on 19.09.2010. As revision marks are not properly shown v0.1.1 will be revised in v0.1.2 R2-105668 for RAN2 #71bis.

Email discussions with deadline Monday 27.09.2010 midnight Pacific time:

[71#40] UMTS: MDT - 25.331 baseline CR [NSN]

=> Expected output: Endorsed non-contentious baseline running CR to be used as baseline for further work (should be submitted to RAN2#71bis)
conclusion: Email discussion was kicked off by Guillaume Decarreau (NSN) on 16.09.2010.
25.331 REL-10 CR is provided to RAN2 #71bis in R2-105784.

[71#41] LTE: MDT - 36.331 baseline CR [NSN]

=> Expected output: Endorsed non-contentious baseline running CR to be used as baseline for further work (should be submitted to RAN2#71bis)
conclusion: Email discussion was kicked off by Margorzata Tomala (NSN) on 03.09.2010.
36.331 REL-10 CR is provided to RAN2 #71bis in R2-105781.

Email discussions up to RAN2#71bis submission deadline (Monday 04.10.2010 midnight Pacific time):

For all these email discussions, the expected output is an email discussion report unless otherwise indicated.

[71#50] UMTS/LTE: MDT - Need to configure (if so, how) limitations for neigh cell reporting ? [CMCC]
related Tdoc R2-104552

- Several options discussed in RAN2#71 (e.g. no limitation, max number,...)
conclusion: Email discussion was kicked off by Zhenping Hu (CMCC) on 13.09.2010.
Email discussion report is provided to RAN2 #71bis in R2-105664.

[71#51] UMTS/LTE: MDT - Potential enhancements related to location info reporting [NTT DCM]

- Related to R2-104928 (do we want event triggered logging/reporting), and R2-104667 (would the event triggered logging/reporting only concern the location information or location information and radio measurements).
- For any enhancement that seems agreeable, it should be clear whether it would apply to LOG-MDT and/or IMM-MDT.
conclusion: Email discussion was kicked off by Wuri Hapsari (NTT DOCOMO) on 12.09.2010.
Email discussion report is provided to RAN2 #71bis in R2-105738.

[71#52] UMTS/LTE: MTC - Simulations assumptions and output [Huawei]

- Try to agree on MTC related simulation conditions (to be captured in the TR 37.868)
- Try to come with one set of simulation outputs (for each RAT type) on RACH load simulation results
=> Expected output: Text proposal for TR 37.868 for RAN2 #71bis
conclusion: Email discussion was kicked off by Jeff Gao (Huawei) on 01.09.2010.
Email discussion report is provided to RAN2 #71bis in R2-105873.

[71#53] UMTS: SON ANR – Discussion CELL_DCH based approach [ZTE]

conclusion: Email discussion was kicked off by Li Yang (ZTE) on 09.09.2010.
Email discussion report is provided to RAN2 #71bis in R2-105428.

[71#54] UMTS: SON ANR – Discussion non CELL_DCH based approach (cell reselection) [Nokia]

conclusion: Email discussion was kicked off by Brian Martin (Nokia) on 08.09.2010.
Email discussion report is provided to RAN2 #71bis in R2-105718.

[71#55] UMTS: SON ANR – Discussion non CELL_DCH based approach (log approach) [Huawei]
 conclusion: Email discussion was kicked off by Yang Xudong (Huawei) on 13.09.2010.
 Email discussion report is provided to RAN2 #71bis in R2-105571.

[71#56] LTE: CA - Enabling/Disabling of UL functionality [IDT]
 related Tdocs R2-104753, R2-104862
 - Try to come to agreement on the way forward w.r.t. UL enabling/disabling i.e. :
 - Do we want to stop any UL functionality based on lower layer signalling ?
 - If so what functionality does this concern (reception of UL grants ? SRS transmission ? ...) ?
 - When is this functionality enable/disabled (e.g. linked to some DL deactivation, separate control)
 - Based on poll in RAN2#71, priority should be given to see whether a solution based on control linked to DL deactivation is possible.
 conclusion: Email discussion was kicked off by Ghyslain Pelletier (Interdigital) on 10.09.2010.
 Email discussion report is provided to RAN2 #71bis in R2-105703.

[71#57] LTE: CA - PHR reporting [Ericsson]
 see agenda item 7.1.1.6
 - Try to progress PHR reporting, especially w.r.t. the following questions:
 1) Do we need PHR reporting for non-scheduled CC's ?
 - If there is a dependency on UE-PHR, please coordinate with RAN1 colleagues
 2) Do we need Type2 PHR reporting if PUCCH is not transmitted in this TTI ?
 3) Is the prohibit timer per CC or per UE ?
 conclusion: Email discussion was kicked off by Lisa Boström (Ericsson) on 06.09.2010.
 Email discussion report is provided to RAN2 #71bis in R2-105462,

[71#58] LTE: MBMS - Stage-3 progress [Huawei]
 - Try to progress the stage-3 work on aspects like:
 - request details (e.g. related to load control ? limit response for one request ?)
 - feedback details
 conclusion: Email discussion was kicked off by Junhui Zhao (Huawei) on 15.09.2010.
 Email discussion report is provided to RAN2 #71bis in R2-105812.

CRs from other WGs to be agreed/reviewed by RAN2 before RAN #49:

The following RAN5 CR to a RAN2 spec was provided by MCC (on 31.08.2010) for review until Fri 03.09.2010 9am CEST: CR was agreed by email.

- R2-105248 Addition of RESET command for GNSS (contact: Qualcomm) RAN5 CR 34.109 0044 - F REL-9 AGNSSTest_UTRAN R5-104469 agreed on 03.09.2010

The following 12 RAN3 CRs to RAN2 specs were provided by MCC (on 31.08.2010) for review until 03.09..2010 9am CEST: 12 CRs were agreed by email.

- R2-105249 Keeping neighbouring eNBs up-to-date with complete list of served cells (contact: NSN) RAN3 CR 36.300 0256 - F REL-9 TEI9, LTE-L23 R3-102357 agreed on 03.09.2010
- R2-105250 Keeping neighbouring eNBs up-to-date with complete list of served cells (contact: NSN) RAN3 CR 36.300 0257 - A REL-10 TEI9, LTE-L23 R3-102358 agreed on 03.09.2010
- R2-105251 Description of Energy Saving mechanisms (contact: Ericsson) RAN3 CR 36.300 0258 - F REL-9 TEI9, LTE-L23 R3-102423 agreed on 03.09.2010 (22.4.X.3 : bullets not in B1 style: can be solved in CR implementation)
- R2-105252 Description of Energy Saving mechanisms (contact: Ericsson) RAN3 CR 36.300 0259 - A REL-10 TEI9, LTE-L23 R3-102424 agreed on 03.09.2010 (22.4.X.3 : bullets not in B1 style: can be solved in CR implementation)

- R2-105253 Handover request routing toward RN (contact: Huawei) RAN3 CR 36.300 0260 - B REL-10 LTE_Relay-Core R3-102455
agreed on 03.09.2010
- R2-105254 MBMS Session Update procedure (contact: Motorola) RAN3 CR 36.300 0261 - F REL-9 MBMS_LTE R3-102481
agreed on 03.09.2010
- R2-105255 MBMS Session Update procedure (contact: Motorola) RAN3 CR 36.300 0262 - A REL-10 MBMS_LTE R3-102482
agreed on 03.09.2010
- R2-105256 CS Fallback Indication and Handover Restriction List (contact: NEC) RAN3 CR 36.300 0263 - F REL-9 TEI9, LTE-interfaces R3-102490
agreed on 03.09.2010
- R2-105257 CS Fallback Indication and Handover Restriction List (contact: NEC) RAN3 CR 36.300 0264 - A REL-10 TEI9, LTE-interfaces R3-102491
agreed on 03.09.2010
- R2-105258 X2-AP non UE dedicated messages handling (contact: Huawei) RAN3 CR 36.300 0265 - B REL-10 LTE_Relay-Core R3-102494
agreed on 03.09.2010
- R2-105259 Detach procedure for relays (contact: NTT DOCOMO) RAN3 CR 36.300 0266 - B REL-10 LTE_Relay-Core R3-102515
agreed on 03.09.2010 (some 3GPP style issues can be solved in CR implementation)
- R2-105260 RN and DeNB OAMs should be able to exchange info (contact: Ericsson) RAN3 CR 36.300 0267 - B REL-10 LTE_Relay-Core R3-102542
CR was revised in R2-105261 (changes on changes; figure and title not in TF style; why adding OAM IP Connection Setup when it is FFS ?)
R2-105261 CR0267r1 to 36.300 was agreed on 03.09.2010

Preparation of SI and WI status reports for RAN #49:

Rapporteurs were asked to make draft status reports available for review on the RAN2 reflector (without Tdoc number) asap after RAN2 #71, below the results of RAN #49 are summarized:

Note: Below percentage complete/target completion date/status report are listed.

- REL-10 WI Network-Based Positioning Support for LTE, rapporteur: Terri Brooks (TruePosition)
acronym: LCS_LTE-NBPS, WID: RP-090354 revised in RP-100135 at RAN #47
history: RAN #43: New: 0%/Dec. 09 (RAN #46)/-
RAN #44: 5%/Dec. 09/RP-090402
RAN #45: 25%/Dec. 09/RP-090700
RAN #46: 30%/March 10/RP-091043 exception request sheet: RP-091391
RAN #47: 30%/Dec. 10/RP-100032 WI moved to REL-10
RAN #48: 30%/Dec. 10/RP-100459
now: RAN #49: 30%/March 11/RP-100769
- REL-10 WI Inclusion of "RF Pattern Matching Technologies" as positioning method in the UTRAN, rapporteur: Norman Shaw (Polaris Wireless)
acronym: LCS_UMTS_RFPMT-CoreWI, WID: RP-091427
history: RAN #46: New: 0%/June 10 (RAN #48)/-
RAN #47: 0%/June 10/RP-100134
RAN #48: 0%/Dec.10/RP-100450
now: RAN #49: 70%/Dec.10/RP-100753
- REL-10 WI Core part: Minimization of drive tests for E-UTRAN and UTRAN, rapporteur: Malgorzata Tomala (NSN)
acronym: MDT_UMTSLTE-Core, WID: RP-091423 revised in RP-100360 at RAN #47
history: RAN #46: New: 0%/Dec. 10 (RAN #50)/-
RAN #47: 20%/Dec. 10/RP-100051
RAN #48: 35%/Dec. 10/RP-100457
now: RAN #49: 60%/Dec.10/RP-100763
- REL-10 WI Core part: Latency reductions for LTE, rapporteur: Henrik Enbuske (Ericsson)
acronym: LTE_LATRED-Core, WID: RP-091449

- history: RAN #46: New: 0%/Dec. 10 (RAN #50)/-
RAN #47: 20%/Dec. 10/RP-100060
RAN #48: 20%/Dec. 10/RP-100469 (WI will be on hold until Dec.10)
now: RAN #49: 20%/Dec. 10/RP-100779 (WI will be on hold until Dec.10)
- REL-10 SI Study on RAN improvements for Machine-Type Communications, rapporteur: Arnaud Meylan (Huawei)
acronym: FS_NIMTC-RAN, SID: RP-090991 revised in RP-100330 at RAN #47
history: RAN #45: New: 0%/June 10 (RAN #48)/-
RAN #46: 0%/June 10/RP-091087
RAN #47: 10%/Dec.10/RP-100084
RAN #48: 30%/Dec.10/RP-100500
now: RAN #49: 40%/Dec.10/RP-100795 (SI on hold until new MTC WI is completed)
 - REL-10 WI Core part: Further enhancements to MBMS for LTE, rapporteur: Zhao Junhui (Huawei)
acronym: MBMS_LTE_enh-Core, WID: RP-100691
history: RAN #48: New: 0%/Dec.10 (RAN #50)/-
now: RAN #49: 30%/Dec.10/RP-100791
 - REL-10 WI Core part: Service continuity in connected mode and location information for MBMS for LTE, rapporteur: Zhao Junhui (Huawei)
acronym: MBMS_LTE_SC-Core, WID: RP-100690
history: RAN #48: New: 0%/June 11 (RAN #52)/- (WI on hold until Dec.10)
now: RAN #49: 0%/June 11/RP-100792 (WI on hold until Dec.10)
 - REL-10 SI Study on signaling and procedure for interference avoidance for in-device coexistence, rapporteur: Zhenping Hu (CMCC)
acronym: FS_SPIA_IDC, WID: RP-100671
history: RAN #48: New: 0%/Dec.10 (RAN #50)/-
now: RAN #49: 25%/Dec.10/RP-100800

Note: RAN #49 also approved 2 new RAN2 WIs:

- REL-10 WI RAN mechanisms to avoid CN overload due to Machine-Type Communications, rapporteur: Jeff Gao (Huawei)
acronym: NIMTC-RAN_overload, WID: RP-101026
now : RAN #49: New: 0%/March 11 (RAN #51)/-
- REL-10 WI Interfrequency detected set measurements for UMTS, rapporteur: Chris Callender (Nokia)
acronym: Interf_dset_meas_UMTS, WID: RP-101015
now : RAN #49: New: 0%/Dec.10 (RAN #50)/-

Annex H: History

Document history		
Date	TSG RAN WG2 Tdoc	Subject
16.08.2010	-	Skeleton report for RAN WG2 #71 provided before the meeting.
17.08.2010	-	Updated skeleton report for RAN WG2 #71 provided before the meeting.
19.08.2010	-	2nd update of the skeleton report for RAN WG2 #71 provided before the meeting.
23.08.2010	-	3rd update of the skeleton report for RAN WG2 #71 just before the start of the meeting.
31.08.2010	-	Draft report of RAN2 #71 (v0.1)
05.10.2010	R2-105276	Draft report v1.0 of RAN2 #71 with revision marks relative to v0.1, provided as input for RAN2 #71bis
15.10.2010	R2-106031	Final report of RAN2 #71 as agreed by RAN2 #71bis (note: Just Tdoc number for email discussion report [71#52] was corrected in Annex G in the final RAN2 #71 report.)
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		