TSG-RAN Working Group 2 (Radio L2 and Radio L3) ***TSGR2#4(99)351***
Berlin 25th to 28th May 1999

Agenda Item: 4.1

Source: **Temporary secretary (vice-chair)**

Title: Draft Minutes of WG2 meeting #3, Yokohama 13.-16.4.1999, v. 0.3

Document for: Approval

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1. Opening of the meeting

The chairman of the group, Denis Fauconnier, opened the meeting. On behalf of the host, NTT DoCoMo, Mr. Katsuhiko Yamagata welcomed the group to Yokohama and addressed practical matters related to meeting arrangements.

2. Approval of the agenda

Requested changes to the agenda:

Item 7.2 (on radio resource management) was postponed because the editor of R2.02 from CSELT was ill. The agenda point was treated later during the week.

A timeslot for a short presentation was requested by Telelogic after the initial agenda points. Telelogic announced that it is making SDT licences for the standardisation editing work available at no cost. This offer allows everyone in the group to have access to the same tool.

3. Appointment of secretary

As the former secretary of the group, Dr. Georgi Petkov, has been assigned to other tasks by NEC, a new secretary for RAN WG2 is needed. No candidates were registered before or in the meeting. These minutes are authored by the vice-chairman.

4. Approval of past activities

4.1 Approval of previous minutes

A paper copy was not available, so the previous minutes were handled based on comments on the electronic version.

IDC commented that in the discussion on type-II/III hybrid ARQ the scheme is presented as mandatory, but in the liaison part it is shown as FFS, which was the agreement of the meeting. The secretary corrected the previous minutes to describe type-II/III hybrid ARQ as being “mandatory FFS” for TDD

Another correction was indicated when approving S2.02 (see 4.2.2), where a reference to the altered conclusion in a later part of the minutes was added.

A revised version of the minutes with the corrections indicated herein as revisions was copied under Tdoc no. 210.

4.2 Approval of permanent documents

4.2.1 S2.01: Radio Interface Protocol Architecture, v. 0.1.2

Changes were presented by the editor.

Motorola questioned an editorial note in 5.6.4 on DSCH saying that all of the indicated concepts may not need to be supported in the -99 release, i.e. why only has this additional comment? The decision, as proposed by the chairman, was to **remove the sentence**, since everything that can be finalised in 1999 should be in the -99 release.

Nokia commented an addition by the editor in section 6; the current text seems to imply that an S-RNC-ID is allocated for each UE, but actually the UE:s are informed about the RNC-Id:s. Proposed by the chairman, the **text was decided to be rephrased** to: “For each UE having an RRC connection there is an RNC identifier that is signalled to the UE...”

4.2.2 S2.02: Services provided by the Physical Layer, v. 0.1.1

Presented by the editor.

Changes in the primitives have been done according to the first decision in the previous meeting that was later revisited. Thus the **primitive names** are currently not in line with S2.01 and S2.03. These **will be corrected** accordingly.

A corrected version was presented as tdoc 297 later in the meeting and approved.

4.2.3 S2.03: UE Functions and Interlayer Procedures in Connected Mode, v. 0.1.1

Changes presented by the editor.

Page 14: “DCH / DSCH + DSCH Ctrl” was noted to be missing from the header in 5.5.1.1.

With this change the document was approved.

4.2.4 S2.04: UE Procedures in Idle Mode

Only small editorial changes had been done to the document. These were presented by the editor and the document was approved.

4.2.5 S2.21: Specification of MAC Protocol

Changes presented by the editor. Document approved.

4.2.6 S2.22: Specification of RLC Protocol

Presented by the editor (CSELT)

Philips commented that the text in p. 25 (USTAT PDU) should be corrected to notify that errors in individual PU:s within one PDU cannot be detected. Siemens commented that it would also be possible

to define a CRC that is able to point out in which part of the PDU the errors would be. Nokia commented that since this functionality was not included in the original proposal, it should be looked at when a proposal exists. Conclusion: **No changes** to the referred text at the moment.

Ericsson commented an editor's note on page 14 about multiplexing in RLC. It was agreed in the previous meeting that there would be no multiplexing on RLC-layer. CSELT agreed as the RLC-model, as shown in the figures of S2.22, does not include multiplexing, which will then be accomplished and described by either MAC or the physical layer. Siemens commented that some things inside the model should be clarified in accordance with the email discussion and that AM and UM data could be mixed into one data flow. Ericsson remineded that in the January meeting AM and UM were multiplexed, which resulted in a lot of comments on that subject. Then the model was changed to remove the multiplexing of AM and UM, which was agreed in the previous meeting. Conclusion: The **editor's note will be removed** as proposed by Ericsson.

Ericsson: In 9.1 there should be a note saying "All the section shall be reviewed when the protocol is **agreed**.

With these changes the document was approved.

4.2.7 S2.31 RRC

No changes to the document from the last meeting. Approved.

4.2.8 R2.01: Guidelines and Principles for protocol description and error handling

Document presented by Philips. Additions have been done from the approved Nokia-contribution in the previous meeting.

Telelogic commented on a deleted sentence in section 6, on why the group is declining support from ETSI with the deleted sentence?
Nokia explained that this is not the case, as the documentation from ETSI PEX has already been distributed to the group.

The document was approved.

4.2.9 Tdoc 208: Draft version of 3GPP TSG RAN WG2 TR R2.02 V0.0.2: on "Radio Resource Management Strategies" (source: Editor)

After agreeing the scope and index of the document in the previous meeting the structure has been filled by cutting and pasting from other documents of the group (mainly S2.03 and S2.04).

Views on the scope and contents of the document were discussed. Chairman noted that the document should say how the operator can use the features described in a protocol specification (e.g. S2.03 and S2.04). The report should start with a reference to e.g. S2.04 for idle mode, after that examples should be inserted to show how to utilise the protocol. Any part which gives explicit information about how the UE behaves should be in S2.04. Ericsson and Alcatel commented that it is dangerous to have overlapping text in different documents and that overlapping scope already exists between some documents. This document should consist of examples on the use of features defined in protocol specifications. CSELT preferred to avoid any overlapping, but would also prefer to keep the copied introductory text. Chairman noted that for RRC Connection Mobility S2.01, S2.03 and S2.04 define RRC Connected Mode and Idle Mode, and those documents should be referred. CSELT will propose new introductory text in the next meeting.

Text in 5.5 and 5.6 should be replaced by a reference to S2.04. In 6.1.1.4.1 Proposed to replace text in S2.03 with a reference to R2.02.

A new version with appropriate removals of copied text was distributed during the meeting as Tdoc 314 and approved.

5. Reports & liaisons from other groups

5.1 Tdoc 211: Liaison from WG3 regarding the length requirements for s-RNTI, c-RNTI and RNC-ID

Presented by Vodafone. The first estimates on the lengths of identifiers are 12 bits for RNC-ID and 24 bits for s-RNTI and c-RNTI. All additional space and expansion possibilities that can be provided by the air interface are welcomed.

Siemens asked, what is meant by expansion possibilities. Vodafone replied that the intention is to point out that even though these figures are best guesses for the near future, flexibility is welcome for later additions. The chairman added that no matter how large address spaces are chosen, in the end such a number will be a hard limit, which is why WG3 is requesting flexibility.

Philips questioned the need for 24 bits of RNTI:s when all the users are not going to connect at the same time. The chairman replied that there is a lot of expansion space, but that also 24 bits is exactly the same amount as in TMSI, which may be one background.

Ericsson commented that the size of the c-RNTI should be more limited, because an s-RNTI is always allocated. The chairman noted that the liaison gives maximum values, but the RNTI-aspect can be looked at by WG2 in trying to find out how many are reasonable. Probably the limit would be much lower due to power requirements.

5.2 Tdoc 216: Liaison Statement to TSG RAN WG2 on Transmit Diversity Issues

Presented by Motorola: WG1 has identified three types of transmit diversity mode selection:
1. Mode selection requiring no signalling.
2. Mode selection on a per-cell basis.
3. Mode selection on a per-call basis.

Philips requested clarification on what STTD is. Motorola replied that it is a transmission technique from two antennas, requiring no feedback. Ericsson added that there the energy is split into two antennas by a factor selected by the network.

The chairman noted that for the selection per cell something needs to be indicated on BCCH and asked why the modes need to be broadcast on BCCH and not configured during call setup. Ericsson replied that what is broadcasted is whether transmission diversity (open loop) is used on common channels.

For open loop all that seems to be needed is an indication on whether it is used and on which channels. Regarding S1.11 the relevant passage explains that what is said at the call set-up phase is whether the network allows the use of diversity-mode or not. The system can command the UE to use either open-loop or feedback mode by higher layer signalling.

Conclusion on the liaison was that no problems were found, but both open loop and closed-loop need to be better understood to do the signalling. A reply will be sent (Tdoc 334) saying that WG2 sees no problems with the signalling, but would appreciate more information on the signalling requirements.

5.3 Tdoc 217: (Proposed) Liaison statement on UMTS Simultaneous Mode (source SMG12)

Presented by Alcatel. The liaison has been presented already once before, which is why the SMG12 chairman was contacted by Alcatel outside meeting time to find out whether there are specific concerns. It turned out that the liaison was sent again because last time there was no official answer.

An answer was prepared by Alcatel to note that RAN WG2 is working on the subject (Tdoc 320).

5.4 Tdoc 230: Reply to Liaison Statement from WG2 concerning transmission delay over I_{ur} and I_{ub} (source: RAN WG3)

The study for the transmission delay is said to be ongoing and no accurate values can be provided at this time. Initial values are expected to be available by WG3#3 in April.

Clarification was asked on FACH-ACK and its source. Current assumption in WG3 was said to be that an acknowledgement to RACH frames would be produced from Node B, but listed as being a function to be defined by WG2.

The document was noted, results on the FACH-ACK would be sent to WG3. Note: A specific liaison statement for this purpose was not prepared.

5.5 Tdoc 231: LS on Abbreviation for Common Channel

Presented by Vodafone. WG3 has so far used CCH when referring to common transport channels applicable to Iur (RACH, FACH and DSCH). According to S2.01 CCH is logical control channel, thus WG3 seeks advice on the terminology to use.

Philips reminded the group that they have already earlier proposed to remap the abbreviations the other types of expressions. The chairman replied that there ha not been much confusion in the group so far. When presenting the documents, the appropriate comments on channel types have always been given.

Alcatel noted that the root of the confusion may be the use of CCH in S2.01 to signify logical control channels. Ericsson (S2.01 editor) recommended to write out the terms for the transport channels and logical channels. Abbreviations should be reserved for the channels that are being used, so that groups of channels would be spelled out to avoid confusion.

Figure 3 in S2.01 was to be edited to remove abbreviations CCH and TCH and a corresponding liaison sent to WG3 advising to use the abbreviations only for the specific channels, while groups of channels should be spelled out. The liaison was prepared by Ericsson (Tdoc 292).

5.6 Tdoc 271: Security functionality in the RAN (from SA WG3)

Presented by Vodafone. The liaison addresses several points of encryption including end-points, ciphering algorithm, key agreement, starting ciphering, key selection, synchronisation and avoiding multiple uses of the same cipher stream. Also data integrity is addressed. SA3 requests a joint meeting with RAN2 to clarify a number of questions.

Alcatel had a question on cipher key selection, if there is the need to change the key if a new service is set up. According to Nokia, the matter needs to be checked from SA3. Siemens asked about data integrity; it was said that data integrity needs to be maintained with the data integrity key, but what would be the "current integrity key" in the beginning of the connection? Nokia replied that basically the mechanism to establish the key would be the same as for ciphering. The establishment algorithm would just be different. In the beginning if there is no key it needs to be established with authentication. It should be asked from SA3, how old keys can be used? Nokia commented further that the key on the SIM card can be used if there's a check from the CN, but between UE and UTRAN it is not directly usable.

For the joint meeting Nokia noted that SA3 has a meeting 11-12 May (Bonn)~~13. 14.5. (Bonn)~~, one possibility would be to have a presentation from WG2 in that meeting.

All requirements have been noted. Due to many issues related to ciphering not fully maturing in this meeting, a joint meeting is not requested yet, but the possibility to have a joint meeting together with the next WG2 meeting was signalled in a liaison prepared by Nokia (Tdoc 326). Issues to be considered are e.g. two-key solution, which messages should be integrity-protected.

5.7 Tdoc 272: Liaison from TSG RAN WG#1 to TSG RAN WG#2 regarding the proposed USCH

Presented by Motorola. Addresses power control, timing advance (whether guard periods or the like are necessary) and possible problems in respect to acquisition and channel estimation.

WG1 has identified no problems from their point-of-view. The document was noted.

5.8 Tdoc 273: Liaison statement to WG2: Physical channel for FACH (source: RAN WG1)

Presented by LGIC. WG1 has taken necessary actions to introduce TFCI bits for the secondary CCPCH in specification documents in their next WG1 meeting in April. WG1 has concluded that no new physical channel would be necessary for multicasting after the addition of TFCI bits to CCPCH. Possible adoption of such a transport channel for UTRA is seen to be a WG2 issue.

The document was noted.

5.9 Tdoc 274: Liaison statement on Hybrid ARQ Type II / III (source RAN WG 1)

Presented by Siemens. Type-II/III hybrid ARQ schemes have not been discussed in WG1 in detail before, which is why the subject is currently under study. From WG2 WG1 would like to know, how many different code rates shall be used? Also it is asked, if the scheme is to be optional for UE or NW.

The reply to the liaison (tdoc 294) was postponed until hybrid ARQ mechanism has been discussed. Otherwise the document is noted.

5.10 Tdoc 223: Response to the Liaison letter from WG2 (TSGR2-#99-186) on the CPCH concept (source RAN WG1)

Presented by Golden Bridge Technologies. WG1 has recognized no immediate flaws in the scheme. Additional details are required for further evaluation.

The document is noted and WG2 can continue to work on the concept from L23 perspective while waiting for the results from WG1.

5.11 Tdoc 276: LS on Principles for the continued work with Terminal Capabilities (source TSG-T2)

Presented by Motorola. All relevant WG:s and SWG:s requested to study the fundamental definitions of terminal capabilities that are provided and their implications. Priorities for terminal capability work have been addressed.

Information in annex A of the liaison will be captured in an informative annex in one of the reports.

Siemens asked how the question on minimizing the mandatory number of implementation capabilities should be addressed. Motorola replied that only those capabilities should be identified which are absolutely necessary, if that clarifies the subject. T2 will probably define different services, describe those services and ask other groups, which capabilities will be needed to support those services. First there is the basic terminal which is able to register to and exist in the network. As indicated by the liaison, the speech terminal will be the next thing that is asked.

Philips asked if there will be terminals that only have these baseline capabilities? Motorola replied that most likely not, because the baseline capabilities are defined only for test purposes etc.

Motorola proposed that WG2 documents should be scanned on a relatively high level to form an initial list of the baseline capabilities needed for the terminal.

Radio resource management strategies (R2.02) captures the material from Annex A of the liaison. Motorola will gather the reply checking how much could be captured by Thursday (Tdoc 295).

5.12 Tdoc 275: The LS answer to TSG-T2 on Baseline Terminal Capabilities

WG4 gives a list of parameters relevant to them, in WG2 document noted, no specific reply at this time.

5.13 Tdoc 289: Response to Liaison Statement From TSG RAN WG2 on Random Access (source RAN WG1)

Presented by IDC. RACH payloads up to 50 octets are discussed. For TDD the liaison gives the possibility to combine the presently used two RACH bursts / slot / code into one, boosting the data transmission efficiency of TDD RACH, but halving the amount of collision groups.

Alcatel asked if WG2 should be careful with the interpretation of the maximum payload as with a spreading factor of 32 the RACH transfer payload can be 50 bytes or more, but WG1 does not recommend that as the normal case.

A discussion between the chairman, Siemens and IDC on the drawbacks of reducing collision groups followed. Siemens informed that half-slot and full-slot can not be mixed in one slot because it doesn't work with joint detection and channel estimation.

Generally, WG1 doesn't give hard limits, but advices not to stretch the limits of the messages too much. Siemens commented that from this liaison statement it can be understood that comparable payload is achievable in both FDD and TDD-mode. WG1 is also pointing out that dedicated channels would be more efficient for the transmission for longer messages. Alcatel noted that in the liaison the capacity of the system hasn't been addressed very much and there is no preference on the message length, so it is very difficult to answer based on this liaison. WG2 should either try to reformulate the questions to get better answers or come up with a proposal. The size of the message should still be minimized, otherwise the system may need to block access attempts too easily if the resource taken by RACH for access attempts gets too high.

IDC commented that WG1 is still working on the subject. If the answer would exist, it would've been put down in the liaison. WG2 should try to respond to the collision group question that is being made by WG1,while the coding aspects should be addressed by WG1. For TDD a spreading factor of 8 and rate 7/8 coding could be considered and proposed to WG1. Philips noted that still with different coding

there is possibility for quite large payload on the TDD RACH without decreasing the number of collision groups. Siemens commented that as shown by the liaison, it is possible from the L1 point-of-view to have comparable amount of data for both FDD and TDD, but the use of a dedicated channel is recommended for larger amounts of data, so one interpretation is that the first access should be just a channel allocation for the higher layer message.

The chairman noted that from physical layer point of view FDD and TDD can be aligned. Can the number be limited to something smaller, or are higher payloads wanted? How should bursty data be transmitted? On RACH or by some other method? One method is to do the TDD access in two steps, but use the same information contents in both modes. IDC questioned, if the FDD implementation would there be made as restrictive as TDD if that was introduced and asked, if there was plans to transmit small packets on RACH. Siemens has not ruled out the possibility to transfer small packets over RACH for a known user with short identification. IDC: Pointed out that the efficiency of RACH improves 60-70% if the RACH slot is not split. So, if data needs to be passed on the RACH, the resource is much better utilized using just one RACH instance per slot. The efficiency increase is due to having just one midamble.

For FDD, Ericsson has simulated 10 octets for RACH payload in another contribution for removing the MAC-ACK, which is still very feasible. Doubling that capacity contributes to system load, but not extremely much. In FDD the payload is very flexible and can be controlled by the broadcast. Up to 20 octets should not be a problem. For data transmission larger payloads may be feasible, but for the random access 20 octets is seen to be sufficient.

Conclusion: The topic was reconsidered together with approving the liaison after looking at the rest of the related documents. A document on the current status (tdoc 296) of the discussion and a liaison statement to WG1 were produced by IDC.

5.14 Tdoc 315: Study of handover between UMTS and GSM / GPRS (source SA WG2 / SMG12)

The liaison addresses the need to have handovers of simultaneous IP and PSTN domain services. The work is joint between 3GPP and ETSI. Open points include e.g.: How to downgrade service in connection with intersystem handover? (mostly Iu, but some radio aspects are included).

Since no reply is asked, no reply will be sent at this time.

6. Results of e-mail discussions

6.1 Tdoc 218: Report from Multicast Email Discussion Group (source LGIC)

Presented by LGIC. No necessity for a new physical channel for multicast purposes, if TFCI is included into Secondary CCPCH. WG1 is looking into that. The necessity of introducing a new transport channel was raised, but there was no comments on the reflector. The questions regarding clarification for multicast service requirement were sent to SA WG1, but no SA WG1 has taken place between the last WG2 meeting and this meeting.

Report noted.

6.2 Tdoc 220: Change request to S2.31

Presented by Ericsson. Includes message and information element functional definitions for already identified messages (+RRC Connection Reject), proposals on new structure for S2.31 and a modification proposal for the RRC model.

The chairman asked why several UE-Id:s are described as optional when they are actually exclusive. Ericsson agreed that the description should be changed, as it is correct that one is mandatory and they are exclusive.

Philips asked if it should be possible to map paging type 2 to PCCH as well? Ericsson replied no, as paging type 1 is used when transmitting on PCCH, paging type 2 being used for DCCH.

The chairman noted that additional clarification would be needed on the SSDT-parameters listed. Motorola explained that open-loop for common channels needs to be broadcast. Feedback-mode needs to be dedicated on per-commention basis. SSDT is the power-control scheme used during soft handover, this also needs to be indicated by higher layer signalling. WG1 choice of acronyms has caused some confusion. Telecom Modus further clarified that when UE is in macro diversity it chooses one primary link and all other cells switch off their transmission. It is only required on RRC to switch this function on and off because the actual switching of transmission is done by L1. Some space on DPCCH is punctured and this space is used by the UE to signal which transmitting link is the primary one. The operation can be done faster than handover because it is done using L1 procedures.

Philips asked, regarding page 19, if "It is assumed that the DL timeslot configuration is the same for all radio links..." could be changed to "(re)configuration" to specify that also reconfiguration is meant. Also it was questioned if any other name for "Active set update" and the corresponding complete message would be more appropriate? On these topics comments were invited on the email reflector.

Discussion on the model of RRC. IDC noted that there is Iub drawn between PNFE and DCFE, even though it is really not those two boxes that interface, but rather the routing functional entities. The chairman asked for clarification on the purpose of the model, as even on the Iub everything is not shown, so there are things missing from already the transmission of data. Telia said that it is important to know that the model fits into UTRAN architecture. Including architecture into the model this way it can be known that the model is compliant. It was commented that this model shows e.g. that the RRC in Node B controls the physical layer in Node B and that this type of picture shows some problems which need to be solved. As commented by the chairman, there's only a subset of stage 2 in the RRC model, whereas the MAC is modelling the complete stage 2. There are signalling examples in S2.03 and termination points in S2.01, so the question on what else needs to be modelled was raised. Nokia commented that the original intention was to model just the interfacing between GC, Nt and DC-SAP:s and the RLC-SAP:s. Now the model has gotten a bit complicated, so there should perhaps be discussion on whether everything needs to be shown with this model. The chairman clarified that it needs to be understood exactly what needs to be described. If the radio resource control functions related into each node are subsribed, it is overlapping with UTRAN architecture descriptions. Then perhaps a simpler model describing just the interconnections between the SAPs would be appropriate. To be discussed during the meeting by Telia with other delegates to come to a conclusion.

Ericsson corrected a mistake on p. 30, where the last three "**Inter-frequency**":s should be changed to "**Inter-system**". Contributions invited on whether "Inter-mode" would be a better name than inter-system.

Philips asked why on p. 18 it is necessary (mandatory) to assign resources already in the RRC connection setup? Ericsson replied that transport channels need to be identified and also the physical channels that these transport channels are mapped on. Maybe transport channels should not be viewed as resources, physical channels are assigned optionally.

The chairman asked a question on naming, i.e. why is there an RRC Connection Setup and not an RRC Connection Request Complete? Ericsson clarified that there has been a proposal from a company to add an RRC Connection Setup Complete message from the UE, which is why the complete-name has not been used here yet.

Nokia: The RLC-PDU size used to have a note that it can be derived from other parameters, but now it has changed to mandatory? Ericsson replyed that there is a note saying that it can be derived. If that is not possible, then it will be mandatory.

Philips noted that transport channel reconfiguration has no bearer parameters, Ericsson replied that TrCH reconfiguration only configures from TrCH downwards.

With these changes the document is approved (the model is FFS), a copy will be given to the editor of S2.31.

6.3 Tdoc 224: Email discussion on Location service feature (source: Rapporteur)

Reported by Nortel Networks. GSM-documents related to the area are listed. Physical layer support needed for this work includes issues of heareability, problems associated with asynchronous network and the loss of capacity from other services. The proposal is that the work would be based on what has been done in GSM and the modifications needed because of the new radio interface would be studied. The most urgent issue is the required modifications to layer 1 and layer 2 to support the measurements for location calculation.

Ericsson asked if the work is proposed to be controlled by RAN WG2 or SA WG2. According to Nortel the interest is to get the work going, which is why it was first introduced here. At the moment it is important that the work starts on the lower layers and it shouldn't be required to wait for the work to proceed from the top. Motorola commented that some aspects might be better handled by SA2, e.g. section 4 and RAN2 would concentrate on the other items. According to the chairman it is clear that SA2 is responsible for stage 2. In T1P1 it is only shown on BSS-level, but because we have interfaces within UTRAN we cannot keep it as a black box. Currently there is no stage 2 for 3GPP, so this is a bit reverse, but the work needs to be progressed. There's a joint meeting on location in early May (5.-7.), after which there a stage 2 is hoped for. A liaison statement could be initiated requesting the stage 2 when it is created. Meanwhile the item can be progressed mostly on radio aspects. Ericsson commented that a number of issues will also affect WG3 of TSG RAN.

Motorola commented that **section 2** has a number of main concepts, where some have FFS written on them, some don't. **All should be kept on FFS level** at this time.
Nokia noted that on p. 33 the interfaces between 3G-SGSN and GMLC and 3G-MSC should be called **Li interfaces**. These two changes will be done.

Siemens: All listed operations related to e.g. synchronisation are not valid for both modes, a note needed that the specification needs to be continued to find the requirements for each mode. "The **applicability of the material for TDD is FFS**" should be inserted, the note can be removed after a detailed review.

Document was considered approved when there were no comments on the following morning.

6.4 Tdoc 252: Report on the RLC email discussion (source: Ericsson)

Transparent and unacknowledged-mode are shown as unidirectional to facilitate the support of unidirectional services; a bidirectional services can be easily set up by taking two pairs of entities. In acknowledged-mode the feedback messages need the reverse direction. Clarifications for length vs. end indicator (naming) and the operation of the segmentation function in specific cases. On the R/S bit it was clarified that the field could be expanded into a longer control PDU type indicator.

On the EPC counter: Most likely not applicable to common channels. On common channels a normal retransmission timer would be adapted, which does not adopt to transmission rate. If the TFI gets lost, the solution is either to estimate a value of EPC based on previous transmissions or not to update the EPC at all. Not updating the EPC leads to extra delay before retransmission of the STAT PDU. The situation is similar for any transmission error when MAC-multiplexing is applied.

Discussion on uni- and bidirectional RLC:s. CSELT thought it would be useful to specify that for a bidirectional transparent or unacknowledged-mode RAB two pairs of RLC-entities are required. Ericsson noted that as the specification is now, it is indicated that the RLC entities are unidirectional. Chairman noted that the basis given in the document doesn't directly imply bidirectional RLC-entities in ack-mode. Piggybacking acknowledgements could one possible feature. Ericsson acknowledged this but noted, that as both directions are needed anyway, there are advantages that can be pointed out as soon as the entities are actually set up. Piggybacking acknowledgements has not been considered, but it hasn't been excluded either. Philips questioned in it would be possible to have one UE just sending to the receiving UTRAN in ack-mode, which would be unidirectional and this would be differentiated from bidirectional, where the data is flowing both ways. Siemens wants to introduce unidirectional RLC:s as the basic element. According to Ericsson the current model is future-proof supporting unidirectional, bidirectional, piggy-backing and no piggy-backing. No problem seen in working with this model as it is at the moment.

Conclusion: It is noted that there is no good reasons presented to change the model at this point, so the bidirectionality of the acknowledged-mode is kept as it is. No changes implied to permanent documents at this point.

6.5 Tdoc 266: Report from the USCH email discussion group (source: Motorola (rapporteur))

The comments from Motorola, Mitsubishi, Golden Bridge Technology and Ericsson were reviewed. Discussion was postponed to the time when the USCH contributions are presented.

6.6 Tdoc 237: Status report from Email discussion on Radio Interface Ciphering (source: Rapporteur)

The discussion has concentrated on ciphering solutions on either MAC or MAC+RLC. As an additional mechanism integrity control has also been discussed. The MAC-based solution has the advantage of being a common solution for all channel types and radio access bearers, but the interworking with type II/III hybrid ARQ needs to be considered. The MAC+RLC solution is closer to existing (GSM+GPRS) solutions, but has additional complexity compared to a MAC-based method.

Alcatel commented that regarding the drawback in the RLC+MAC -based solution that several counters need to be maintained, not sure that the added complexity in RLC+MAC-solution is significant, so not too much weight should be put on that argument. Also, the SA3 liaison was said to provide a solution in the form of the RAB indicator. Nokia responded saying that the RAB indicator is static, so it is a different item than the counters.

Conclusion: Every solution needs a deeper look at it, so the subject will be discussed further.

6.7 Tdoc 241: Report from the methodology email discussion group (source: Nokia (rapporteur))

Protocol message properties, specification of abstract syntax, SDL and TTCN and selection of transfer syntax had been discussed. For protocol message properties it was concluded that each message must be extensible, for broadcast messages compactness is more important than full extensibility and for some messages it might be vice versa. For specification of message abstract syntax ASN.1 was considered to be the best method. ASN.1 can be used with SDL and TTCN without reference to encoding. A few RRC messages shall be selected for closer inspection.

Alcatel asked if messages between UTRAN and BSS such as HO have been discussed? Not yet, according to Nokia, but they should be taken into account.

6.8 Tdoc 284: RACH / FACH termination point ad-hoc report (source: rapporteur)

The report summarized the discussions on frequency of RACH failures due to collisions and fading, the pros and cons of the three main alternatives (no MAC-ACK of RACH messages, MAC-ACKs from cRNC and MAC-ACKs from node B). No conclusion had been reached on the reflector.

Alcatel claimed that there's closed-loop power control implied for RACH, but that it doesn't actually exist. Telia explained that there's closed-loop PC only for setting the initial power but not during transmission. Philips checked that the proposal to remove MAC-ACK does not refer to the preamble ack? Ericsson and Nokia acknowledged this to be correct.

6.9 Tdoc 286: Overview of ODMA email ad-hoc (source: Vodafone)

No comments on the reflector had been presented by other companies. In WG1 a number of questions had been raised.

7. Items with interlayer and / or protocol architecture impact (changes into S2.0X or R2.0X)

7.1 Idle Mode procedures

7.1.1 Tdoc 240: Idle and dedicated mode performance requirements and procedures (source: Vodafone)

The document addresses the requirements at switch-on, idle mode cell re-selection and handover.

Ericsson is not sure if the UE should be allowed to select the "optimum cell" during idle mode because this would lead to frequent cell reselection. It is believed to be important to select a "good-enough" cell to be able to perform random access. Vodafone will address their WG1 delegates on the topic, the main point is said to be to generate discussion. The chairman noted that more time should be spent on BCCH, which impacts the performance of cell re-selection a lot. How the BCCH is scheduled, which information is needed for scheduling which action etc. CSELT commented that any strategies and algorithms should be reported in R2.02.

It is proposed to start an email discussion under the topics cell selection, cell-reselection. Vodafone will be rapporteur for the discussion.

7.2 Radio Resource Management Strategies

7.2.1 Tdoc 251: Usage of Radio Access Bearer Control Procedures (source: Ericsson)

Presents a series of examples on how radio access bearer control procedures are used to control the UE and system resources. System functionality with respect to these procedures and the influence of e.g. traffic volume measurements is shown. Also the changes of UE RRC substates and UE configurations are shown due to the different radio access bearer control messages.

Nokia asked on chapt 3.1, 2nd paragraph, if the threshold is common or UE-specific? Ericsson replied that it should be possible to set the **threshold** commonly for all UE:s, so it can be broadcast but it could also be set with UE-specific signalling. The standard should allow that. The sentence will be **changed to: "Threshold can be set either by broadcast or by UE-specific measurement control messages".** Nokia further asked on the section on "RRC Parameters in Measurement Report", Page 3, what is the measurement result if it is not the RLC buffer payload? Ericsson replied that the info on the transport channel that triggered the report is a part of the report as well. Alcatel commented that in S2.01 it is said that the measurements are a MAC function, why do they appear to be coming from RLC? Ericsson said that the scope is not to propose a change to S2.01, but that this example can be used anyway. Nokia noted that there's no contradiction with S2.01, because ~~RLC will have to get the~~ reports from all the RLC-entitie~~:~~s should be passed~~anyway~~ to MAC to report to RRC for channel type switching. The chairman summarized saying that perhaps it is a matter of wording, the model should be fine.

Proposal to **remove an FFS** from S2.31: agreed. Nokia: Figure 7 + 10: Tdoc 232 gives a different proposal on the **completion messages**. When transferring into the permanent document these will be marked **FFS**. DoCoMo noted that the words "reconfigure" and "**reconfiguration**" are used interchangably, should be one term according to the spec: Agreed. In Fig. 5 a change of DL Ch. Codes is indicated, even though it is the SF that is changed? Ericsson commented that it is not clear that a SF will always be available in the same part of the code tree.

7.2.2 Tdoc 232: Procedures to release a dedicated channel (source: Nokia)

Proposes a change in the procedures in S2.03 where physical channels are deallocated. The principle would be to base the release in the NW on an unacknowledged-mode L3 complete message from the UE.

Ericsson had concerns about whether there are error situations where it is possible to lose the UE. Specifically, if an unacknowledged RELEASE-message is lost and the UE disappears, the NW cannot know if c-RNTI can be used. Nokia further commented that in the case of macro diversity NW will have to indicate the cell where the UE is expected to be after the release. If the UE is left in another cell, it has to perform a cell update.

Conclusion: Open questions remain, some FFS:s will be inserted into the text from Ericsson in 251

7.2.3 Tdoc 246: Comparison of time slot pooling and code pooling for packet data in UTRA TDD (source: Siemens)

Code-pooling is referred to as a strategy that allocates the whole PDU into a single timeslot using multi-code transmission. Timeslot-pooling refers toa strategy that uses a single code in several timeslots of the same frame for transmitting a PDU.

In response to a question from Vodafone asking if unsatisfied users = blocking, Siemens replied that the criteria is defined in 30.03. Vodafone also asked what was be the number of cells in the simulation. Siemens replied that in the UMTS specification the NW is indefinite with a manhattan grid and you measure in a point where you have no corner effect. Discussion on the loss probabilities of PDU:s regarding the difference of whether they're in the same or different timeslots. Chairman checked if DCA is used in the simulations? Siemens reported that it is not included. Chairman commented that depending on the criteria with no DCA some slots can be completely busy, some almost free.

Conclusion: Descriptions of timeslot pooling and code-pooling to be inserted into R2.02 with guidelines from the simulations on which to use.

7.2.4 Tdoc 270: Change request to R2.02, Admission Control Principles (source: France Telecom)

Aims to clarify principles regarding Admission Control at the RNC level to provide guidelines on the topic.

After a comment from Mannesmann, FT agreed that CAC should be changed to AC. FT has not intended AC to be used for best-effort. Alcatel considers some AC to be necessary, because also best-effort users occupy some resources.

Section 2 of the document proposed for incorporation into R2.02. Will be elaborated between FT and the editor.

7.3 Services of the physical layer

7.3.1 Tdoc 219: New transport channels for point-to-multipoint data transmission (source: LG Information and Communications, Ltd. KOREA)

The proposal argues the necessity of having two new transport channels, Downlink Shared Common Channel (DSCCH) and DSCCH control channel.

Ericsson found it hard to see the difference from the present transport channels. The sentence saying that inband UE-identification should perhaps be changed to something else. Trouble understanding the characteristics given for the transport channel such as “serious user multimedia traffic delivery”. What is multicast topology? LGIC thought that PCH and FACH use the same physical channel, so the same logic could be applied here. LGIC acknowledged that using FACH could be an alternate solution, if some features can be modified. Multicast topology is related to the definition of the transport channel in the contribution. Ericsson noted that L1 processing of PCH is totally different from FACH at the moment. They don’t see the necessity of inventing a new transport channel name if the same objectives can be filled with the present transport channel definitions, just adding a new logical channel. The inband identification could be removed from the characteristics of FACH, also on the DSCH it doesn’t exist so the DSCH could perhaps be used for this type of services. The chairman commented that there are some ambiguities in the definitions of transport channels, because many of the definitions rely on physical layer internal optimisations. LGIC noted that inband identification is not appropriate for the multicast case. Philips asked why DSCH couldn’t be generalized to group identifiers? LGIC responded the difference being that DSCH is closed-loop power controlled.

The chairman proposed to reconcile on the definitions of transport channels and find out the exact differences in an adhoc during the meeting. Now that the transport channel concept is better understood the characteristics can be worked on. If from the physical layer point of view it is the same channel then a new transport channel should not be needed.

Conclusion after separate ad-hoc discussion on transport channels was that there is one property missing: Whether a channel is stand-alone or whether association to another channel is required. Also it is missing, whether inband identification is needed on that level. For S2.02 (S2.01) in the list of transport channels the notion of addressing will be removed and the notion of association to another channel will be added to cover also multicast channels.

7.3.2 Tdoc 238: replaced by Tdoc 298: Detailed Description of Variable Rate Packet Transmission (source: Panasonic)

Discussion on the tasks of different layers: Ericsson commented that the margin to reduce data rate should not be indicated by the physical layer, it should be the MAC deciding this. Figure 2 is ok, what figure 2 gets is a threshold. When the threshold is crossed, the higher layer is notified. Ericsson is not fully convinced that reporting the use of the common power resource in downlink in every frame would be efficient. Panasonic replied that inn WG1 it was the opinion of companies that the judgement on whether data rate should be increased or decreased should be made in L1 and the actual operation in MAC. The scheme is operated on the physical layer to make the adjustment faster. The chairman commented that in Node B it is very difficult to increase or decrease, when all data is available just in

RNC. It would be easier just to indicate the current L1 values. First the physical layer sends report to MAC, which then sends information to RRC if MAC-operations are not enough. Would the information be sent inband or outband on L2 etc. Alcatel commented that the measurement report should go from Node B to RNC, as there is advantage in knowing the situation in RNC. Siemens visioned that one or more thresholds could be introduced and attached to different operations, so the algorithm could be more generally parametrized. Philips commented that the allowable power mentioned in the algorithm is currently undefined.

Conclusion: More information needed before decisions can be made. No changes will be incorporated into S2.21 now; which MAC is impacted and where the info would be sent. There is agreement on the basic principle, now the implications to interfaces and the complete model need to be added. In S2.01 MAC functions an addition should be done: "Scheduling may also be based on measurements from the L1.", the right place will be found the S2.01 editor. For the change proposal to 8.1.4: Just take the parts in parenthesis and modify: "Allowable transmission power has been reached" (hardware limit) "Average transmission power is x dB below allowable transmission power." The information on how often and on which form of values this information is sent needs to be clarified. Contributions invited.

7.4 UE Identities

No input documents.

7.5 Ciphering / security mechanism and procedures

7.5.1 Tdoc 267: HFN Initialization (source: Nokia)

Reviews issues involved with initializing the HFN for ciphering. Presents methods of initialisation and a problem (when using the same ciphering key for two subsequent RRC connections), which is proposed to be noted in related documentation in WG2.

Siemens was concerned about the overhead of initializing the counter for MAC-based ciphering, if it means trading complexity to overhead on the radio interface? Nokia explained that the problem is not specific to MAC-based ciphering, it is common to all methods. For parallel bearers the problem can be somewhat more prominent, if several counters need to be initialised. Alcatel was not sure why the same HFN could not be used for different bearers with different offsets.

Conclusion: A section on ciphering was proposed by S2.01 editor based on tdoc 267.

7.5.2 Tdoc 236: Solution to problem of MAC based ciphering with Type II / III hybrid ARQ (source: Nokia)

A mechanism is proposed to be able to use MAC-based ciphering with type II / III hybrid ARQ. The proposed mechanism replaces the RLC-PDU numbers from the outband signalling with CFN and PDU position information in transport block set. The proposed mechanism also makes it unnecessary to transmit outband information with the initial transmission.

Siemens commented that in a separate Siemens proposal the PDU-number is transmitted outband. Nokia responded that the previous agreement was that the RLC would work in Type-I, and Type-II/III would be implemented as an add-on, which is why the number has here been transmitted together with the data. Siemens saw that the proposal can be taken as a starting point for discussion. This information gives the possibility to cipher using type-II/III hybrid ARQ. For the outband information something needs to be clarified later on, but this is viewed as a way to progress. Nokia added that the proposal now is to agree on the ciphering method for transparent data (speech services) on dedicated channels and base it on UE-specific frame numbering. Packet data has open questions that need to be clarified still. Alcatel doesn't see the need for a written contribution, conclusion or the way towards it should be

available based on the input provided. To be able to continue on MAC the ciphering should be concluded.

Chairman asked if omitting transparent data from common channels address DSCH too? Nokia had no conclusion on that yet. Ciphering was further dicussed during the meeting, comments witten together with a liaison later in the document.

7.6 Random Access Procedures

Summary of discussions during coffee break: Most likely solution is to remove FACH-ACK completely.

No objections or comments were announced from any companies.

Conclusion: Put MAC-ACK into an informative annex and work without it from now on.

After the conclusion, tdoc 282 (Ericsson) and 288 (Nokia) did not need to be presented.

7.6.1 Tdoc 235: Random access payload (source: Nokia)

Lists minimum and maximum field lengths for information elements that have been proposed to give basis for discussion on the topic.

Material from Nokia was applied by IDC when collecting a document on views regarding the random access use and payload.

7.6.2 Tdoc 228: Proposed LS to L1 on RACH prioritisation (source: Sony International (Europe))

Proposes the inclusion of Access Service Classes (ASC) into S1.14 as a starting point.

Chairman: Prefers to send the liaison only with the first page and without the CR, which can then be brought in by an individual company. Remove the reference to the CR. Only addresses FDD, so a similar CR for TDD would also be needed, perhaps by another company.

Vodafone asked how many group signatures are envisaged to be included? Sony replied that it is up to the network operator to decide how many access classes there would be, typical values perhaps 3-5. Mapping of services to access services classes has not been done yet.

Tdoc for the edited document is 300.

7.6.3 Tdoc 229: Backoff algorithm with dependency on failed attempts (source: Sony International (Europe))

Proposes a backoff algorithm which takes the number of already failed attempts into account in an exponential way.

Philips asked if the simulations already consider effects from interference? Do they contain the preamble acknowledgement scheme? For FDD their simulations show that interference causes problems with retransmissions long before collisions. The chairman commented that with the preamble ramping, there is sufficient C/I when the ramp ends, i.e. if the control comes at that point it is already too late. Sony has not considered interference, only collisions. Acquisition indicator is not considered. Ericsson asked if a WCDMA L1 channel model been used. Sony replied that no channel model is being used. The chairman emphasized the difference to TDMA aloha channels and noted that there are two types of backoff currently required in the system. One regarding the preamble transmission and one regarding

the actual transmission of the PRACH burst. In the end the backoff algorithm may not have similar characteristics as the ones in GSM. If a retransmission is triggered by the RLC, it will be transmitted with a new signature and time slot, which is again highly unlikely to collide. Sony replied that in some occasions there will be collisions, which is why the proposal has been presented. The case addressed here is the one where a positive acknowledgement has not been received from the NW. Siemens noted that at least or TDD this type of procedure has to be considered. Motorola commented that the proposal is completely decentralized, should be centralized where possible. In the proposal from Motorola (originally on ACCH) the UE doesn't attempts access, whereas in Sony's proposal there is always an attempt that causes interference. Not convinced that there would be a problem addressing the RACH. The impact of a load persistence algorithm in downlink is not seen to be very large. Sony has doubts on the need to estimate the network load properly in the network side. Concerning persistance. Giving an estimate on the impact on downlink signalling, it is seen to be 4% of the total broadcast load, which is considered high.

Conclusion: Contributions invited into the next meeting. What are the things from L1 documents that need to be handed over to WG2? What is the problem that needs to be solved? What is the algorithm for the ramp-up algorithm for L1? Which things about it need to be controlled?

7.7 Location / positioning mechanism and procedures

7.7.1 Tdoc 305: Draft report on Location service feature (source: Rapporteur)

Changes after the first version in the beginning of the meeting were presented by the rapporteur. The changes are based on ad-hoc discussions and off-line feedback from different companies. The parts from section 4 which were more stage 2 have been moved into an annex.

Vodafone: Page 17, 3.2.1.3 a comment in parenthesis: "(e.g. for a nearby restaurant directory)" to be removed.

With that change the document is approved. The whole document will be presented in RAN mtg the week after. First steps would be to send the document as a liaison to RAN-1, RAN-4, T-2.

Ericsson commented that more information is needed on the ability of the physical layer, so at this point it would be easier to wait for an answer. The chairman noted that **email discussion** can be launched after the answer.

The work will not continue on the network as long as stage two has not been provided.

7.8 Downlink shared channels

7.8.1 Tdoc 221: Resource allocation on the DSCH (source: Alcatel)

Discussion on the document: Nokia asked why the TB size is proposed to be semi-static? According to Alcatel this is to save TFCI signalling capacity. Yet the intention was clarified not to use blind rate detection on DSCH. Nokia explained that the TFCI maps both TB size and TBS size, so there is no additional overhead introduced. The chairman concluded that there's no reason to limit the standard in this case. According to Alcatel the way to recover the transport format in the UE may be impacted by allowing different sizes of TB:s dynamically.

<u>The following changes to change proposals were agreed:</u>

- 5.6.4.1: The DSCH control channel is supported on the PSCCCH (Physical Shared Common Control Channel which is to be completed by WG1) physical channel.
- Last sentence modified to be an example e.g.: "Transport blocks on the DSCH can be set for a certain RAB to be of constant size, so that the Transport Block Set TBS may be derived from the code allocated to each UE on the DSCH."

- 5.6.4.2.2 S2.01 editor will find appropriate wording for the Layer 1 info. In Layer 2 info: “This Temporary ID is allocated when a RAB is mapped to a dedicated channel.”
- 5.6.4.3 Remove second sentence from the addition.
- Figure 16: Remove the arrow with TFI bits, since it is describing the procedure and could cause confusion with S2.03.
- On change proposals to S2.02 the addition on the dynamic part describes an example and will not be done. TB size stays in the dynamic part.
- On change proposals to S2.21: The first bullet point should read: A UE ID is needed when using the DSCH Control Channel to identify the UE on the DSCH. This UE ID may be optimised for the DSCH. The UE ID as well as the location of the TPC bits on the DSCH Control Channel are allcoated when a RAB is mapped to a DSCH.

Ericsson noted that they object to use of a reduced UE-ID, because no proposal has been presented. Motorola commented support for having a reduced UE-Id.

7.8.2 Tdoc 222: Priority handling on the DSCH (source: Alcatel)

Proposes to send priorities of all data flows together with the data flows for DSCH from MAC-d to MAC-sh for complete scheduling at MAC-sh.

Ericsson was afraid that this would imply setting up two connections on Iur, which should be avoided. The figures should be modified so that there are not several lines coming out of MAC-d to MAC-sh. Nokia commented that as there should not be extensive buffering in MAC-d, there is no big difference in whether the scheduling is done in MAC-d or MAC-sh. Nokia would prefer to have it in MAC-sh

For the included figures the conclusion is not to have the extra line from MAC-d to MAC-sh this keeping things as before for that part. C/T MUX boxes for MAC-sh and MAC-c would be renamed to “C/T MUX and Priority Setting”. The proposal will be rephrased to concern only the sending of priorities from MAC-d to MAC-sh. The separate transmissions on Iur are not within the scope of WG2. S2.21: Priority handling...” MAC-d indicates to MAC-sh the priority level of each PDU.

7.8.3 Tdoc 278: Example of data transmission in DCH / DCH + DSCH (source: Nokia)

Presents an example of downlink data transmission to be incorporated into S2.03. The TFCI of an associated DPCH is used in two parts; one for the dedicated channel and one for the shared channel.

Alcatel feared that splitting the TFCI can lead to problems in the balancing of the power of TFCI . Ericsson and Alcatel were concerned about the different TFCI-values in different Node B:s. Nokia explained that there are now two different parts of TFCI. Alcatel concluded that WG1 should be consulted before we can go much deeper into the subject. Possibility to do good code allocation with 5 bits for DSCH. There are either 6 bits in a single codeword or 7-10 for two codewords.

Decision: The proposal will be incorporated into S2.03 with the additional note that the example is pending on WG1 confirmation on the use of TFCI (how many bits and whether the timing is ok). From WG3 we should ask about the network implications of these DSCH schemes. Tdoc numbers for liaison proposals are: Alcatel, WG1, 303, Nokia, WG3, Tdoc 304

7.9 ODMA

7.9.1 Tdoc 287: ODMA Report Proposal (source: Vodafone)

Introduces the email discussion on ODMA and the questions which have been asked so far. A table of contents for a report on ODMA is proposed.

The scope will be broadened to cover relevant physical layer aspects as well. The report will be R2.05, rapporteur Vodafone.

7.10 Uplink Shared Channels

7.10.1 Tdoc 212: Associated Control Channel and Soft Handover Issues related to 'Dynamic Resource Allocation Control (DRAC of uplink DCH' (source: Alcatel)

The document addresses concerns related to the DRAC.

Discussion on Tvalidity. LGIC asked how it it possible for each UE to listen to the broadcast information just for Tvalidity frames. Alcatel explained that the dynamic part of the transport format can be updated within the transmission time interval. Transmission probability needs to be updated every Tprobability period. Ericsson asked if both BCCH and ACCH can be used in the same cell simultaneously? Is it the same value that is being broadcast? Is there an estimate on the maximum time that the Tvalidity period could be? Alcatel replied that it is the same value, but both channels will not be available for a single UE at the same time. No estimate on Tvalidity value yet, but it should be a roundtrip delay value and quite short. The chairman argued that there's no need to have it as a multiple of TTI. Alcatel replied that the transmission needs to be active for a complete TTI. Proposed to be one Tvalidity period for all UE, so if one UE is using 80 ms then it will be a multiple of 80 for all UE. Siemens asked if FACH is excluded for such signalling period? Alcatel said that UE needs to listen to this information in an asynchronous way, if a complete frame needs to be reserved for sending, FACH seems to be using quite a lot of capacity for transmitting this information. Node B can store and repeat information, so a continuous transmission of information across Node B is not required. According to the chairman if the value of Tvalidity is changed too often FACH could be good, for slower changes BCCH would be fine, but changing the value every 10 ms seems superfluous. The case for downlink DSCH and uplink DCH needs a closer look on the physical layer, the functionality was added last time. LGIC asked what is meant by the case (figure 2) where the bit rate of the dynamically controlled DCH might need to be limited? Alcatel replied that the primary cell doing the control might not be the optimal one. Ericsson was worried about how often the UE needs to read BCCH in parallel to having DCH:s allocated. If they use different beamforming loops there might be problems if it has to be done too often. More knowledge on the frequency of this reading operation and the involved complexity is needed. With adaptive antennas the (soft HO) antenna lobes are aligned, here it is not necessarily the case. Here you may need to search for another lobe which is not synchronised. According to Alcatel, the complexity is similar to soft handover, where the BCCH of another cell needs to be listened to. Chairman noted that at some points it needs to be looked at how many RAKE receivers the UE will need, because there are different proposals for parallel reception. Care should be taken not to end up with too large a number of classes.

Alcatel clarified that the proposal is to have either the ACCH or if it doesn't exist to use the BCCH, so there's only one channel being used at a given time. The chairman noted that there's also a proposal for FACH, which would from the physical layer viewpoint be easier to implement as the BCCH-solution. According to Alcatel for some services it could be thought to have only DSCH in downlink and DCH and DSCH Ctrl in uplink, in which case BCCH would be used for control.

Further contributions invited on the use of BCCH or FACH for the downlink control purpose to gain a more precise understanding on the subject.

7.10.2 Tdoc 213: Change request to S2.03 to include a new procedure for 'Dynamic Resource Allocation Control of Uplink DCH' (source: Alcatel)

Proposal for describing the fast arbitration of radio resources allocation for uplink DCH in S2.03, based on an earlier proposal (Tdoc RAN/WG2 122/99).

Alcatel clarified that in figure 1 the MAC-SH request describes the transmission of control information on ACCH, the request to MAC-B describes BCH transmission. Siemens asked what is the primitive

MAC-SH-Data-REQ? The chairman commented that it is not precisely defined yet, probably interlayer between MAC-d and MAC-sh. Motorola asked why is the message generated from RRC, why not MAC? The chairman reminded that according to the agreement in the previous meeting, RRC is the controlling entity, Alcatel is working according to this assumption.

On section 6 Ericsson commented that the allowed subset of TFS is included in the allowed subset of TFCS, so addition of a new TrCH parameter is not necessary. Alcatel argued that for this adaptation only the TFS is changed, so the complete parameter is not needed. After off-line discussion, the agreement was **not to add the allowed subset of TFS**.

After the discussion it was concluded that even though the principle is clear, some more analysis will be needed to properly understand the scheme. Alcatel revised the proposed text for section 7.2.5 (S2.03) and presented the new version in **Tdoc 309**. The changes were approved.

7.10.3 Tdoc 264: Advantages of allocating uplink resource using the MAC layer instead of the RRC layer (source: Motorola)

The paper presents motivations for performing centralised scheduling of the uplink resource using the MAC layer as opposed to the RRC layer.

FT asked on which SF would the 68 bits be mapped? Motorola clarified that they mean 68 bits on the physical layer, so it would be 6.8 kbits FT further asked, if with the Alcatel proposal there would be an RRC-message of 22-24 bits on the BCCH, whereas the message in the Motorola proposal has 68 bits? Motorola clarified that they would indicate allocations to each user, whereas Alcatel has transmission probabilities to different access classes. Not sure how many QoS classes Alcatel intends to support, but with 4 the size would be comparable. Ericsson asked how many users are intended to be scheduled with this message? Motorola said thet the intention is that the ACCH would be variable-rate so only as much will be used as is needed. If allocation for just two frames would be done, it would still be quite efficient to support up to 8 people on the shared channel. Nokia: If the ACCH is seen to be variable-rate, isn't it the same code-resource that is being used as would be used for the DCCH? Motorola replied yes, the difference being that the ACCH is a common channel. the chairman noted that in the Motorola proposal capacity needs to be requested, in the current scheme it is more relying on statistical averaging. Nokia asked about the situation where we have a speech + packet connection, does Motorola still think that the ACCH is needed? According to Motorola the assumption is that if there is a dedicated channel you don't listen to the ACCH, but the control information would be multiplexed with the DCH. Scheduling would be done in the SRNC, but the request from the NW would still exist. According to the chairman the difference is very small to what exists today, only that the request is done on a different layer. Nokia noted that ACCH cannot be used with adaptive antennas asked if this has been considered? Motorola's current assumption is that ACCH would be transmitted across the whole cell. Nokia L1 has commented that they would like to see us to start with the present transport channels and schemes and to add more things later, if necessary. Alcatel noted that it was already agreed to send a liaison on DSCH Ctrl channel to WG1. Ericsson asked if ACCH is identical to the DSCH Ctrl channel? Do we need to specify both or is one enough? Motorola clarified that it was a proposal that the DSCH Ctrl channel would be renamed to ACCH to be able to carry allocation messages for both DL and UL. Chairman reminded that originally the FACH was enough to carry the allocation messages, now ACCH is a lot more complex having closed-loop power control bits and assignments. DCH + DSCH can be beamformed and closed-loop power controlled, ACCH needs to be broadcast across the whole cell. Has been discussed at length because the channel is quite demanding. Alcatel asked what would be the right approach when a DCH is allocated in one direction. Then the DSCH could be paired with RACH. Alcatel is not sure everybody has the same understanding on that case.

Summary of differences:
DCH allocated (the only difference is to use MAC for signalling instead of RRC, MAC would signal a request, signalling optimisation)
Proposal on common channels, scheduling done by CRNC

The document is noted.

7.10.4 Tdoc 265: Efficient support of packet data services using the shared channels (source: Motorola)

Describes a way to use USCH and DSCH for transmitting bi-directional packet data.

Chairman asked how does the MAC-sh in SRNC differ from the MAC-d of today? Is it only the allocation of resources that is distinguishing? So far the USCH has terminated in the CRNC. Motorola responded that the allocation could come on ACCH from the CRNC alone. Wants the possibility to always allocate the resource either from the CRNC or the SRNC. The chairman explained that there are several SRNC:s involved with one USCH. If the allocation is done in the serving, there is a lot of points doing the allocation. For DSCH the allocation is done in one entity and in the Alcatel proposal for the USCH there is one allocating entity, here the allocation seems to be distributed. The question is how the SRNC:s can allocate resources from USCH and still claim it is a fat pipe? Motorola responded that when Iur gets involved, things obviously get slowed down. They're trying to provide the capability to operate in soft handoff.

A separate session in a smaller meeting room was held after lunch. No conclusions were reached yet.

7.10.5 Tdoc 285: USCH and DSCH Channels for UMTS-TDD (source: Siemens)

Explains the applicability of USCH and the access signalling to USCH and DSCH resources in the TDD implementation of MAC-sh.

Ericsson asked if in TDD-mode ACCH would be exactly the same as FACH. Siemens responded that in TDD-mode ACCH and FACH have exactly the same function.

Motorola supported Siemens on the proposal.

Ericsson would like to see how the signalling operates with this scheme? According to Siemens details will be added later, probably by several different companies. Nokia requested that since the **interconnections between MAC-c and MAC-sh are now defined only for TDD**, this should be indicated to avoid confusion. This was agreed to be indicated in S2.21.

Ericsson requested to **note that USCH is approved for TDD**, because it is not included for FDD yet.

USCH and DSCH for TDD were accepted Modifications will be introduced accordingly.

7.10.6 Tdoc 281: Procedures Associated with Access and Operation of UL CPCH and the Associated DLDCCH (source: Golden Bridge Technology)

Chairman asked about DCH in the figure on page 10 if it is a normal DCH. GBT clarified that it is a dedicated control channel, but can be used for data as well. The chairman commented that there would be no time to transfer the data from RRC, so it would need to be allocated from Node B, which would prevent the transmission from data (because there's no time to get the data ready). FT checked what kind of information is expected to be put on the "dedicated control channel". GBT listed pilot and PC bits. The chairman interpreted this to be basically a DPCCH, which was acknowledged by GBT. Chairman asked if the power usage been evaluated? The codes need to be permanently assigned from RNC, and its discontinuous transmission when there is only DPCCH without data, so the power has to be allocated according to the peak power and not the average. Ericsson asked if it is possible to stop the transmission once the UE has started? If you want to stop once the L1-ack has been given, how would that be done? GBT clarified that there is a tunable parameter of max 5 frames or so. Also the CD field can be used. Chairman replied that there is an RRC entity in Node B in the model, taking care of the allocations in Node B. Can this entity also deny the use of the channel, during access or usage. LGIC asked who is determining the CD field value. GBT replied that it is a random number picked by the UE. In-band, uninterleaved signalling.

Email discussion setup for CPCH, GBT will be the rapporteur.

7.10.7 Tdoc 280: Feasibility of increasing the payload sizes (source: Golden Bridge Technology)

Summary on discussion on the possibility of increasing the payload size on RACH.

Chairman: Really intend to go up to 2 Mbits/s on CPCH?
GBT: If there's a service provider only providing packet access, it would be possible when the whole capacity is dedicated to one user.

Chairman: If the downlink dedicated control channel is adopted, we should note to WG1 that there is identified need for possible uplink PDU:s to be transmitted in the downlink. If there's need for e.g. admission control information, it would have to be transmitted as early as possible and may in this scheme compete for space with the lower layer info.

7.10.8 Tdoc 318: USCH for TDD within S2.01 and S2.02 (source: Siemens)

Proposal to add the USCH to S2.01 and S2.02 for TDD-mode to align it with S2.21.

Remove: "enhanced" from power control.

Document approved.

Ericsson (S2.01 editor) asked if it should be added, why it is currently not included in FDD. According to the chairman there is no need, since the channel will be different.

7.11 UE Capabilities

No input documents were listed.

7.12 Other items

7.12.1 Tdoc 242: Adaptation of Uu Interface for SMS Cell Broadcast Service (source: Mannesmann Mobilfunk)

Introduces the requirement of service continuity regarding SMS cell broadcast and proposes a new logical channel called Common Traffic Channel for this purpose. Also proposes a work package "Adaptation of SMS Cell Broadcast Service" to be installed to specify Uu requirements and develop the resulting changes in S2.XX specifications.

Chairman asked what are the main differences to the multicast service discussed in this meeting? Mannesmann did not see multicast as a name to be appropriate for the service. LGIC asked if the proposal is to rename the multicast channel? Mannesmann replied yes and added the proposal to delete the FFS on the channel.

Decision: The Multicast channel (MCH) will be renamed to CTCH (Common Traffic Channel) for S2.01. Agreed to have a work package creating a report, Mannesmann will be the rapporteur.

7.12.2 Tdoc 283: Proposal to change protocol termination points for PCH (source: Ericsson)

Proposes the termination of MAC-p and the related RLC (transparent) and RRC entities.

Nokia asked which layer duplicates the PCH messages if they need to be sent in several cells? RRC, according to Ericsson. Nokia asked if PCH has a sleep mode and paging groups, how are the priorities handled? Are paging messages prioritised over FACH messages? Ericsson thinks there's no need to decide which transport channel to prioritise, can be chosen by the operator. The chairman asked if PCH would be multirate? Ericsson thinks that if the total pwr of the PCH and the FACH allow it. More precisely the proposal is rather to code-multiplex and than time-multiplex. Comment from Nokia regarding the PC was that it can also be handled from RNC even if the termination point is in Node B.

Alcatel asked if there is there any document describing the PCH scheduling as it should first be explained how the PCH is scheduled before the proposal can be evaluated. There are probably implications related to sleep-mode. Advantages of having scheduling in one place are seen, but some descriptions are missing to properly evaluate the scheme. According to Ericsson no link between the two is seen, but scheduling would most likely be derived from GSM. Scheduling procedures need to be described in more detail, but there should be no big difference whether they are in Node B or RNC.

Conclusion: The proposal is inserted into S2.01 and the former termination points are moved into an informative annex. If a major problem is found, the decision is later revisited. For now, there will be an FFS-footnote on the change requested by a number of companies. Comments should be given in the next meeting.

7.12.3 Tdoc 277: Usage of DCCH vs. CCCH on common channels (source: Nortel Networks)

Proposes to use s-RNTI + RNC ID addressing at the MAC-level. Included is also a proposal to transmit data piggybacked to a cell update message.

Nokia asked in which situation would it be necessary to send data from URA Connected State? Nortel clarified that this could be done for very infrequent packets. Nokia asked that if a data packet is sent in PCH state under a new RNC, how is the Iur routing done? Is a new channel set up or is it assumed that there are some user-plane channels? The chairman asked what is called user plane and what is called control plane on Iur? Common channel transmission in WG3 not solved yet. Transport on Iur is for WG3 to say. Nokia commented that in WG3 URA update goes in an RNSAP message. Ericsson agreed that the current assumption in WG3 is that the first message from a new cell would be transmitted across RNSAP. Nortel said that the reason to submit the proposal is to reduce the signalling on the radio interface. This is something that should be studied before passing the question to WG3.

A liaison statement will be drafted to clarify.

7.12.4 Tdoc 308: Identifier and logical channel for Cell Update (etc.) Procedures (source Nokia)

Gives some arguments for placing the identification in the RRC PDU and for using CCCH logical channels for Cell Update, URA Update, RRC Connection Re-Establishment and UTRAN Originated Paging Response messages.

Philips asked if an RRC Connection exists, does this mean that the s-RNTI exists and the message can be routed? Nokia replied yes, if URA Update is terminated in the serving RNC, but in the presented example the message is sent across RNSAP from the Target RNC. Ericsson commented "slight preference" for what is proposed by Nokia and finds unclear issues in the Nortel proposal. The change to S2.01 would be that for CCCH there would be several different RLC-PDU payload sizes which would eventually cause difficulties with ack-mode RLC transmission or a need for more data rates. Nokia's explanation for the change from previous proposals was that previously it was expected that these messages would have to be ciphered, now after the comments from SA3 it seems that integrity checking will be the preferred method. To support ciphering, the identification would have to have been in the MAC header. Without ciphering RRC header can carry the identifier. Nokia added that the Nortel

proposal slightly more optimised on the radio interface, but not what Nokia would currently like to support on Iur. The chairman commented that as this is the radio interface group and the Nortel proposal is more optimized on the radio interface, it should be accepted and liaisoned to WG3 to find out possible problems on the Iur. IDC asked if the Nortel proposal would make common channel support on Iur mandatory? According to the chairman the support in WG3 would be agreed, mandatoriness is open. Considering the level of mandatoriness several points are open. Ericsson commented the proposal to be difficult from acknowledged-mode point of view when the size should be kept the same. It would be very good to have an ad-hoc, preferably with WG3 to discuss all the aspects of the subject. Both options should be visible on paper for WG3.

Send a liaison to WG3 describing both options and asking whether there are any problems on either one. Decision will be made in WG2 after WG3 has replied to the liaison.~~Adopt the working assumption according to the Nortel proposal including transmission of user data together with cell updating (s-RNTI and s-RNC-ID). Add an editor's note to say that this has been Send a liaison to WG3 to check if there are any problems. Send a liaison describing both options to WG3.~~

7.12.5 Tdoc 307: Support of Hybrid ARQ Type II/III in the Physical Layer (source: Siemens)

The document discusses the operation of hybrid ARQ type II/III from the viewpoint of the physical layer and will be discussed in RAN WG1. Presented in WG2 for information.

7.12.6 Tdoc 302: MAC peer-to-peer signalling in the UTRA and application for Hybrid ARQ (source: Siemens)

Ericsson asked if there are TFI-bits in TDD? If they'd exist, wouldn't the existence of the control data be rather signalled with the TFI? Are the same definitions as for TF:s considered, where you have dynamic parameters and semi-static parameters. Here it is rather the channel that is changed than the transport format. The document is proposedly applicable to FDD also, which could be objected at the moment. The current working assumption from Siemens is not to use them in packet transmission (USCH and DSCH). In the TDD code pool it is difficult to achieve the better protection than for FDD. The redundancy information can be called TFI, but it shouldn't imply it to be inband because it is transmitted outband. The chairman commented that at least for FDD the description of DSCH is with TFI and so far it has been applicable for TDD as well. IDC asked if there is a similar procedure possible only on DCH for hybrid ARQ? Siemens acknowledged that the same procedure can be used for DCH. Ericsson had a question for clarification of capacit request: What is the criteria for transmitting the message? Siemens replied that there's a general mechanism on RACH to limit the capacity, a priority can be used. The problem is solvable and is a problem of the RACH control. The chairman added that also admission control is attached to the problem. Ericsson asked if it is the assumption that RLC and MAC are always in the same RNC? Siemens acknowledged this. At least for TDD there is no assumptions that the protocol would be spread around different nodes. Chairman asked if the macro diversity is intended to be dropped from TDD? Currently it is an option of the mode, which is why the architecture should allow it. The chairman noted that some divergence between FDD and TDD can be seen, if **RLC is proposed to be terminated in the drift RNC**. One interpretation is that there will always be SRNC relocation so that in reality CRNC is always the same as SRNC. Iur between source and target, but not between controlling and serving. IDC asked if it is the working assumption that hard handover is always coordinated with serving RNC relocation? The chairman replied that handover is real-time critical so that it can be performed quickly in UTRAN and independently from the CN, where the less time-critical, which is why a term like "Serving RNC relocation" has been taken into use.

IDC asked about the case of downlink packet transmission using FACH, if the capacity allocation message is lost. according to Siemens one frame will be corrupted and L1 will indicate that it was not possible to decode. A protocol reset on the RLC establish will follow. Ericsson asked if there are simulations based on this scheme? Wouldn't it be fairer to compare with the same type-I hybrid ARQ which we currently have? With this scheme there is a lot of penalty if the outband information is lost? From here it seems to be the case that type-II/III hybrid ARQ is compared with stop-and-wait ARQ and

not the current type-I. The conclusion to include uplink hybrid ARQ doesn't seem justified on this basis. The chairman noted that it may be that the protocol is more easily stalled, when it behaves the same way as a stop-and-wait ARQ. Last time it was agreed that the impacts on the different interfaces need to be checked from the signalling point-of-view. Now one solution to the signalling aspects has been presented. Nokia noted that with the model on this explicit level is not acceptable for FDD, because in FDD we could take advantage of the TFCI and the unequal error protection that exists between DCH:s. Also parallel reception of FACH and DCH is more difficult in FDD, which is why a different scheme would probably be adopted. According to the chairman downlink probably could be aligned by renaming FACH to DSCH Ctrl, with which we have worked with for quite some time now. Ericsson: Assumes that some kind of unequal error correction would seem to be better for FDD than outband information. The chairman noted that due to Iub there may be additional delay in making sure that the combining data is correctly signalled to Node B in time. Capacity definition is not tied to delay and thus, for unrestricted delay data there would be an advantage in the scheme.. Biggest impact is probably in WG1, where the buffering aspects will probably first be addressed and liaisoned to WG2 in asking for the buffering requirement.

Siemens sees two aspects addressed here, impacts on MAC peer-to-peer and the other is hybrid type-II/III ARQ. Would like to adopt, at least for TDD, type-II/III hybrid ARQ also for uplink

The model of MAC agreed in this meeting which allows this type of correction, signalling shows the feasibility. Optimisations to be taken into account, to be discussed by mail. Uplink is still a study item, but not a working assumption. The most optimum way should be worked on the reflector for the next meeting with Siemens as the rapporteur.

Not conclusion now, but since there are both RAN WG1 and RAN WG3 impacts, the subjects should be liaisoned to these groups also. These aspects will be incorporated into a common liaison to both groups, tdoc 311. On ciphering: Based on the mechanism presented by Nokia (outband information for type-II/III HARQ is the place information instead of the PDU number) also MAC-based ciphering is applicable. Thus, another decision factor should be found for ciphering.

7.12.7 Tdoc 243: RRC Connection Establishment and Release for TDD (source: Siemens)

Proposes new RRC Connection Establishment and Release procedures specifically for the TDD-mode to be incorporated into S2.03.

IDC asked if there couldn't just be a note under the synchronisation saying that this isn't applicable to TDD? Siemens objected because there is a difference in the ordering of the messages. According to the chairman the L1 synchronisation is also used in GSM, so it is hard to understand why it couldn't be used in TDD.

After discussion it was agreed that there was not sufficient basis for separating these procedures between TDD and FDD. A new version will be issued for the setup on common channels, being common for both modes.

7.12.8 Tdoc 244: Radio Access Bearer Establishment / Release for TDD (source: Siemens)

Shows examples on radio access bearer establishment and release procedures using either a dedicated channel or an association to the shared channels (USCH / DSCH).

Alcatel noted that there is one unique message to MAC-D/SH/C and asked if the assumption is that they are all in the same node? Chairman replied that Iur should be taken into account, so those implications should be added. Siemens agreed, that it is an open point.

The document was noted and Siemens will update it.

8. Protocol specifications (S2.21, S2.22, S2.31 and R2.01)

8.1.1 Tdoc 317: CR for the description of the FAUSCH in the permanent documents (source: Philips)

Remove the editor's notes considering the inclusion of FAUSCH conditional on L1 working assumptions. Approved.

8.2 MAC

8.2.1 Tdoc 214: Withdrawn (Alcatel)

8.3 RLC

8.3.1 Tdoc 253: RLC Toolbox (source: Ericsson)

Proposing an RLC toolbox containing a set of functions to be applied on RLC to be included into the specification of RLC.

CSELT commented that some updates would be needed to describe it in terms of **payload units**. Ericsson agreed. The chairman asked how the choice between mandatory and optional was made. Ericsson replied that optional and mandatory parts have been chosen according to Ericsson assumptions. The final result can be disputable. The chairman interpreted that mandatory and optional should be read as "mandatory = always" and "optional = network-controlled". Ericsson acknowledged this and added that each transmission direction is controlled independently. The chairman asked if the NW needs to indicate the UE the rule that it follows? According to ericsson it has to at least specify how the receiver should function, but not necessarily how the transmitter functions. Sony was concerned that if we do not reduce the number of all these options, then the UE has to implement all of these options. Ericsson noted that either the number of options could be reduced, or you could have mobiles with different capabilities.

The whole chapter two is proposed to be included into S2.22. An editor's note saying that the set of parameters needs to be reviewed and confirmed will be added to the whole section due to a request from Siemens. Due to a request from Alcatel EPC will be removed and Ericsson will contribute later on the specific parameters (everything FFS at the moment) to be included. The sentence "The functions have to be supported by the UE." should be removed, because as it was discussed all UE:s would not need to support all functions.

8.3.2 Tdoc 255: RLC Status PDU Format (source: Ericsson)

Proposes a flexible STAT-PDU format to be able to use different types of (such as list- and bitmap-based) acknowledgements.

Decision: The change can be approved with the editor's note that the message format is the first draft and needs to be refined when the protocol has been defined. Tdoc 255 approved.

8.3.3 Tdoc 261: PDU formats and parameters for STAT and USTAT (source: NTT DoCoMo)

Main differences to the proposal from Ericsson:

- Separate STAT and USTAT PDU:s.

- In Ericsson's document the credit value N(MR) is FFS.
- In DoCoMo's document List elements or Bit map is left FFS and the content is not described.

9. Liaison and output to other groups

9.1 Tdoc 295: Draft liaison statement on Baseline Implementation Capabilities (source: drafting group (TSG RAN WG2)

Identifies the initial set of basic implementation capabilities within the domain of WG2.

Vodafone argued that RRC Connection Establishment necessitates the use of ODMA and the inclusion of ODMA channels into this list. Motorola commented that it was the feeling of the group that ODMA would not be necessary for just registering to the NW. The chairman agreed that the current assumption is that registering can be done with the other channels. Vodafone intends to expand coverage with ODMA.

The chairman commented that as soon as there is DCH, hard handover needs to be supported. Normally all the procedures need to be supported. There is a radio channel, so the operator should be able to ask you to change the cell. According to Motorola a way to register even without supporting handover could be envisaged. Siemens commented that shared channels are not covered. Motorola replied that the ad-hoc group felt that the shared channels would only be needed for supporting services.

The question was raised on do we just send the list with the document numbers? Or should we analyse our documents and just send the relevant comments? According to Motorola looking at the way other groups have responded they have not sent their documents. In the long-term when TSG-T starts to define conformance tests, questions will be asked on the interpretation of the documents of RAN WG2.

A note that the list will be updated in the future according to the development in the permanent documents shall be added. With the note the list is approved as tdoc 319.

9.2 Tdoc 301: Proposed liaison statement to SMG12 on UMTS simultaneous mode (source: Alcatel)

Response to liaison from SMG12.

Telia commented that when cell reselection from UTRAN to GPRS A is done (connected mode operation), there is need of data buffering on some level, which is not decided yet. Should this buffering be in RLC, this group needs to be aware of that. Something on that could be added to the liaison. According to the chairman that point will be raised in SA in two weeks. In UTRAN there may be a requirement for lossless handovers, but it doesn't exist yet. According to Telia the need for lossless handovers when performing UTRAN to GSM-GPRS handovers should be addressed.

A sentence reflecting the comment from Telia was added to the liaison. Target groups are~~The liaison would be to~~ SA2 and~~,~~ SMG12~~ as the target~~. A new copy was made~~will be~~ available as 320.

9.3 Tdoc 300: LS on RACH prioritisation (source: Sony (TSG RAN WG2 written))

No CR attached and TDD and FDD-mode are the same.

Siemens: Preamble signatures on L1 seem applicable to TDD. Should be "...maps to a group of preamble signatures at layer 1 **for FDD**..."

Will be corrected and reproduced as a tdoc 321.

9.4 Tdoc 303: Proposed liaison statement to WG1 on DSCH (source: Alcatel)

Asks whether the TFCI can be split into two different parts and whether there will be problems with the part of the TFI bits that is not in macro diversity. For DSCH control channel the status of the associated physical channel PSCCCH and the s

Tdoc 322 reissue with appropriate source.

9.5 Tdoc 304: Proposed liaison statement to RAN WG3 on support of DSCH on Iur and Iub (source: Nokia)

Approved as 323.

9.6 Tdoc 266: Tdoc 324: Proposed cover letter LS to TSG SA WG2 for "Report of Location Service (LCS)"

329 approved version.

9.7 Tdoc 325: Proposed LS to RAN WG1, RAN WG4 and TSG T WG2 on "Measurement Requirements for LCS"

330 approved version.

9.8 Tdoc 311: Proposed Liaison Statement to TSG RAN WG1 and TSG RAN WG3 on Hybrid ARQ Type II/III (source: Siemens)

Add a sentence saying: WG2 reminds WG1 that type-II/III Hybrid ARQ is still considered as an increment to the protocol, which will also work without it.

Approved as 331.

9.9 Tdoc 296: Response to Liaison Statement from TSG RAN WG1 on Random Access Channel Payload (source: Interdigital (TSG RAN WG2))

Alcatel doesn't think that the identifier has been concluded and that the preference for the CN-originated id would be allocated like this. Nokia commented that in permanent documentation such as S2.03 it has been the working assumption for some time. Ericsson added that probably there's anyway a need to be able to carry this CN identifier across the RACH if we want to be able to solve contention across common channels.

Change to "20 octet payload" to "17 octets L2/3 payload". Similar change for TDD.

"Not normal case" should be changed to "infriquent", remove "normal case".

Add a sentence saying: “In case 20 octets would be too difficult to fulfill in all cases WG2 has identified another solution that would require 13 octets.”

Fourth paragraph, remove “option”. “For TDD WG2 has noted from the liaison from WG1 that the 50

With these changes the liaison is approved as tdoc 332.

9.10 Tdoc 292: Proposed LS to TSG RAN WG3: Reply to LS on Abbreviation for Common Channel (source: Ericsson)

When referring to “common transport channels” or to “control (logical) channel” it is recommended that the names are spelled out and that no abbreviations on these topics are used.

Tdoc 333, liaison approved.

9.11 Tdoc 291: DRAFT: Liaison from RAN WG2 to RAN WG1 in response to questions raised on transmit die versity issues (source: Motorola)

This document is a response to the questions sent by RAN WG1 on transmit diversity issues.

Approved and will be sent to WG1, Tdoc 334.

9.12 Tdoc 326: Response to Liaison Statement from TSG SA WG3 on Security functionality in the RAN (source: Nokia)

Alcatel noted that in the section for synchronisation the biggest number of bits “The MSB+LSB...” sentence proposed to be removed. Nokia agreed and added that the last sentence in point 7) will also be removed. Nokia asked if more questions are identified on the email reflector, can they be added to the liaison? The chairman thought it to be better if the questions are raised by companies. The contributions can then mention the ongoing email discussions.

Vodafone: point 7, “designing” is perhaps not the right expression. Chairman: “...when continuing its activities.” instead of “designing the ciphering mechanism(s).”

The revised document will be 290.

9.13 Tdoc 320 : LS to SMG12/SA2 on simultaneous mode support

Approved.

9.14 Tdoc 331: Proposed Liaison Statement to TSG RAN WG1 and TSG RAN WG3 on Hybrid ARQ Type II/III

Approved with the correction of one spelling error, new version 335.

9.15 Tdoc 310: Proposed LS to WG3 on feasibility study of Iur aspects regarding two addressing mechanisms for the MAC protocol (source: Nortel Networks)

Approved as tdoc 336.

9.16 Tdoc 312: TS RAN S2.01, Radio Interface Protocol Architecture, V0.1.3 (source: Editor)

Nokia commented that in the chapter, first sentence should be modified. The chairman agreed that it should be generalized to explain that for some radio access bearers in the second scheme RLC does the ciphering and for some it is the MAC. Nokia commented further that for the second paragraph, beginning of the second sentence it should be added: “In this case, the UE FN is composed at least of

Alcatel: Editorial comments on pages 30 and 31, as results of the discussion on DSCH:s.

Chairman: 6.1, bottom of page: s-RNTI and c-RNTI are described to be valid in several cells, but this has not been concluded. FFS should be added for the c-RNTI.

Editor: P. 30 the editorial note changed according to the conclusion.

Approved S2.01 will be 337.

9.17 Tdoc 328: S2.03: UE Functions and Interlayer Procedures in Connected Mode, v. 0.2.0 (source: Editor)

V. 0.3.0: History must reflect that it has been approved by the group.

Approved as 339 pending correction of the editor’s note regarding removal of Node B MAC:s, as proposed by the editor.

9.18 Tdoc 314: Draft Version of 3GPP TSG RAN WG2 TR R2.02 V0.0.3: on “Radio Resource Management Strategies” (source: Editor)

Editorial: “Test” to be replaced by “text” in the notes.

Becomes 0.1.0, Tdoc 341, editorial corrections to the text.

9.19 Tdoc 318 ~~(?)~~: Draft version of the MAC specification (source: Editor)

Changes reviewed on the video monitor.

Editorial change on RAB allocation to DSCH.

Ericsson: The mapping for CTCH should be aligned with that we have in S2.01.
Chairman: The hybrid ARQ Type-II/III has proved its feasibility, but the actual contents for the messages should be fixed later. Insert only an editor’s note saying, in which document the messages have been introduced. This signals that there has been a concrete proposal.

Ericsson: Wanted to be sure that the MAC FACH-ACK has been removed.

The revision-marked version will be transmitted on the reflector. “Proposed version of S2.21 v. 0.1.0,

9.20 Tdoc 316: S2.02: Services provcided by the Physical Layer (v. 0.2.0)

Page 20, if the editor’s note on FAUSCH could be removed.

MPH -> CPHY etc. still needs to be changed.

Approved, 0.3.0, Tdoc 343.

9.21 Tdoc 199: S2.00 V0.1.1: Deliverables and work plan for TSG RAN WG2 (source: Chairman)

All documents after next week will be either 1.0.0 or 2.0.0 depending how they are shown in the workplan. The ones for information will be raised to 1.0.0 and the ones for approval will be 2.0.0.

The permanent documents will progress accordingly:
S2.01: 2.0.0
S2.02: 1.0.0
S2.03: 2.0.0
S2.04: 1.0.0
S2.21: 2.0.0
S2.22: 1.0.0
S2.31: 1.0.0

The rest is for information.

Future meetings and sites were reviewed.

Workplan will raise to 0.2.0 and it will be presented to RAN.

10. Further email discussions

Topic	Rapporteur
Cell selection, cell-reselection	Vodafone
RLC	Ericsson (Chris Roobol)
RRC procedures	Ericsson (Pontus Wallentin)
RRC parameters	NTT DoCoMo (Takaaki Satoh)
Common Packet Channel (CPCH)	Golden Bridge Technology
Common Traffic Channel (CTCH	Mannesmann
Type-II/III hybrid ARQ	Siemens
Soft handover on USCH	Motorola
Ciphering	Nokia

Wednesday prior to the meeting (19.5.) results from the email discussions must be mailed to the reflector.

11. Closing

The chairman thanked NTT DoCoMo in closing.

All permanent documents not approved so far should be mailed out on the reflector by Monday at the latest.

Tuesday night, Japanese time, the documents will be considered approved for presentation to RAN and should be mailed to WG2 (Cc: Denis Fauconnier) with RAN template.

S2.01 v. 0.2.0 Tdoc 337
S2.02 v. 0.3.0 Tdoc 343
S2.03 v. 0.3.0 Tdoc 339
S2.04 will be Tdoc 340
S2.21 v. 0.1.0 Tdoc 338
S2.22 proposed version 0.1.0, source Editor, Tdoc 344
S2.31 proposed version v. 0.1.0, source Editor, Tdoc 345
R2.01 v. 0.1.0, ~~source Editor,~~ source WG2, Tdoc 346
R2.02 v. 0.1.0, Tdoc 341
R2.03 v. 0.1.0, source WG2, Tdoc 347
R2.05 proposed v. 0.1.0, source Editor, Tdoc 348