TSG-RAN Working Group 2 (Radio L2 and Radio L3) ***TSGR2#6(99***
Sophia Antipolis 16th to 20th August 1999

Agenda Item: 4.1

Source: **Temporary Secretary**

Title: Draft Minutes of WG2 meeting #5,
Sophia Antipolis 5.-9.7.1999

Document for: Approval

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1. Opening of the meeting

The chairman of the group, Denis Fauconnier, opened the meeting.

2. Approval of the agenda

The agenda was approved without comments.

3. Appointment of secretary

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

The minutes of the previous meeting were approved.

~~*1.2*~~*4.2 Approval of permanent documents*

4.2.1 Tdoc 512 / 25.301: Radio Interface Protocol Architecture, v. 3.1.0

~~1.1.2~~4.2.2 Tdoc 513 / 25.302: Services provided by the Physical Layer, v. 2.3.0

Presented by the chairman.

distributed versions. It was confirmed that they were.

~~1.1.3~~ 25.303: UE Functions and Interlayer Procedures in

Version 3.0.1 contains three changes, which were indicated by the editor and shown on the cover page. No comments or objections were given, the appropriate change requests will be authored by the editor.

~~1.1.4~~4.2.4 Tdoc 515 / 25.304: UE Procedures in Idle Mode, v. 1.2.0

The presented document has been approved by email, no further comments were presented.

~~1.1.5~~4.2.5 Tdoc 516 / 25.321: Specification of MAC Protocol, v. 3.0.0

Changes presented by the editor. Document approved.

~~1.1.6~~4.2.6 Tdoc 517 / 25.322: Specification of RLC Protocol, v. 1.1.1

The document was presented by the editor (CSELT).

- The definition of the R-field proposed to be removed.
- Editorial mistake corrected on the H-field. There was a duplicate definition added which is now removed.
- N(R) and N(MR) removed because they don't exist any more.

The decision is to revert back to the RAN-endorsed version, which will be electrically distributed as Tdoc 645.

~~1.1.7~~4.2.7 Tdoc 518 / 25.331 RRC Protocol Specification, v. 1.1.0

Presented by the editor (Motorola). No changes to the document from the last meeting.

~~1.1.8~~4.2.8 Tdoc 519 / 25.921: Guidelines and Principles for protocol description and error handling

No changes.

~~1.1.9~~4.2.9 Tdoc 520 / 25.922: RRM Strategies

No changes.

~~1.1.10~~4.2.10 Tdoc 521 / 25.923: Location Services

No changes.

~~1.1.11~~4.2.11 Tdoc 522 / 25.924: ODMA

No changes.

~~1.1.12~~4.2.12 Tdoc 523 / 25.925: Broadcast / Multicast Services

No changes.

~~1.3~~4.3 *Reports & liaisons from other groups*

4.3.1 Minutes of the workshop on idle mode and handover

The essential parts of the meeting were presented briefly by the chairman. The high-level schedule was to spend one day on handover and one on idle mode. What has been produced is general guidelines, but the precise work is to be done by the groups.

~~1.1.2~~4.3.2 TSG RAN plenary

Reported by the chairman. Everything approved except for 25.302, which should be completed in this meeting. The RAN workplan will be distributed for the meeting [secretarial note: No number found for this; has 509 been distributed?]. All remaining documents have to be approved in October.

Short summary of the OHG discussion in RAN plenary. Hooks to be defined in –99 to be able to bring the extensions to the protocol next year. A workshop on hooks and extensions on high level will be held in Sophia Antipolis 24th-26th of August. Details to be worked by RAN WG2.

Procedures questions on WG1, 2 and 4. WG2 defines the requirements for measurements, WG4 does accuracy and WG1 provides the means to do the measurements. Algorithms defined here will be checked in WG4 to confirm that they conform with operator requirements.

~~1.1.3~~4.3.3 Other meetings

23.8. a joint meeting between CN1, RAN2, RAN3, SA3 (security) in Sophia Antipolis is planned to address handover aspects and the removal of LLC in UTRAN.

27.8. a joint meeting with SA2 to discuss some architectural aspects, cell updates, dependencies between cell updates and mobility management etc.

~~1.1.4~~4.3.4 Tdoc 530 / Liaison statement on monitoring of UTRA FDD cells (source WG4)

If the measurements section in 25.302 progresses, it would be included into the reply to this liaison. To be checked at the end of the meeting.

A reply to be prepared as tdoc 692 by Ericsson.

~~1.1.5~~4.3.5 Tdoc 531 / Liaison statement to TSG-R WG2 as a reply to questions submitted to TSG-R WG1 on Tx diversity issues (source RAN WG1)

Parts of the liaison will be captured into RRM Strategies document for easier reference. Tdoc 646 will present the changes [secretarial note: Is 646 available?].

Information to RAN WG3 needed on the parameters for setting up a radio link, because on WG2 level that is visible only in the parameters.

~~1.1.6~~4.3.6 Tdoc 532 / Liason response to TSGR1#5(99)732 “Liason Statement on RACH Payload Requirements” (source RAN WG1)

The liaison was presented by Nokia. The summary of the answer is that the identified 20 octet payload is o.k. WG1 further asks if a smaller RACH payload than 20 octets needs to be supported.

Discussion:

- It was noted by Nokia that some new capacity results after the preparation of this liaison exist and will be addressed in a separate Nokia contribution. The point is that with the 20 octet payload the RACH limits the cell coverage, if an operator wants to plan coverage for speech only.
- It was commented that it is difficult to know how to address the possible coverage problem before WG1 has concluded on it.

- Siemens commented on the aspect of TDD that flexible ways to provide the access can be found. There is a proposal for this meeting which allows both one and several steps in the access.

The RACH payload can be tuned with the same principles as other channels explained in 25.302 with 1 bit granularity from 0 to 20 octets. For the PRACH only a reduced combination can be available because the allowed combinations need to be sent on the BCCH. A reply will be produced by Ericsson as tdoc 693.

~~1.1.7~~4.3.7 Tdoc 533 / Liaison to RAN WG2 on: LS on feasibility of AICH NACK to RACH Message Part and feasibility for UE to listen to AICH and FACH simultaneously (source RAN WG1)

WG1 believes that it is feasible to despread both the FACH and AICH simultaneously.

The liaison is noted. More information is requested on the FACH-ACK which has been proposed.

~~1.1.8~~4.3.8 Tdoc 534 / Reply on liaison statement to RAN WG2 on DSCH (source RAN WG1)

RAN WG1 has included into the specification the possibility for not sending the code words corresponding for the DSCH activity from all downlink links. RAN WG1 is aware that the TFCI code word provided not via all links has lower performance than the one provided normally in SHO.

Impact for 25.303: FFS pending on this reply from RAN WG1 can now be removed from the example on downlink data transmission on the DCH / DCH + DSCH in 25.303. A change request will be prepared by the editor.

~~1.1.9~~4.3.9 Tdoc 535 / Liaison statement on Physical Layer Baseline Implementation Capabilities (source RAN WG1)

R1 copies to R2 that it is aware of the inconsistency regarding support of dedicated channels, between this LS and that sent by TSG RAN WG2 in document T2-99397. R1 does not consider support of dedicated channels to be part of the baseline implementation capabilities, but the matter is subject to discussion with TSG RAN WG2.

Discussion:

- The question in, considering RRC connection setup, location updating etc., can the basic terminal manage without dedicated channels?
- Ericsson expressed that the minimum terminal should be realized without the necessity to support common channels. This is supported by the group, so a reply will be sent saying that dedicated channels are not necessary for the baseline capabilities.
- It was discussed whether the service implementation capabilities will be mandatory for a terminal of a given class. There should be a way to specify e.g. what a speech terminal has to support.
- A comment from the T-1 aspect is that the basis for the test cases has to come from the core part of the standard. RAN WG2 must find a way to unambiguously define what is mandatory and what is not. Certain regions may decide not to ask for the whole set of tests.

A short liaison to T-2 addressing the exclusion of dedicated channels from baseline terminal capabilities will be prepared by Ericsson as Tdoc 652.

~~1.1.10~~4.3.10 Tdoc 536 / LS on Asymmetric Transport Channel Reconfiguration Procedure (source RAN WG3)

TSG RAN WG3 has studied the proposed asymmetric transport channel reconfiguration procedure and has reached the conclusion that it may not be feasible to incorporate this. Some reasons for this conclusion are given in the liaison.

Nortel has a contribution to address these questions. The contribution is addressed later on the agenda, the questions in the liaison will be treated together with that document

~~1.1.11~~4.3.11 Tdoc 537 / Reply to LS from RAN WG2 on support of DSCH on the Iur interface (source RAN WG3)

Liaison presented by Nokia. WG3 doesn't see a major problem in supporting the 'phantom TFI' (TFI without data) that is needed to support DCH / DCH + DSCH with one TFCI in the SRNC = CRNC case. The support for the same scenario (one TFCI) with SRNC <> CRNC is not considered possible for the '99 release.

RAN WG3 also lists what is needed to operate under the constraints of the '99 release as two alternatives for supporting handovers when a DSCH is allocated.

Nokia has a contribution proposing the inclusion of the SRNC = CRNC case with one TFCI. The topic will be discussed together with that document.

Draft reply authored by Nokia as Tdoc 690.

~~1.1.12~~4.3.12 Tdoc 538 / Proposed LS on UE requirement to report OFF (source RAN WG3)

TSG RAN WG3 have taken the working assumption that if the UTRAN already knows the relation between different FN_{CELL}s, the UE does not need to report the OFF value for radio frame synchronisation.

TSG RAN WG3 would like to ask TSG RAN WG2 if they intend to provide the ability to signal to the UE in RRC protocol whether the UE is required to report the OFF parameter.

NTT DoCoMo has a related contribution (Tdoc 575), so the topic will be discussed together with treating that document.

NTT DoCoMo will provide a reply as tdoc 694.

~~1.1.13~~4.3.13 Tdoc 539 / Liaison Statement on RAB Sub Flows concept and associated definitions (source RAN WG3)

The liaison defines RAB sub-flows as follows: A RAB as defined in the UTRAN vocabulary can be realised by UTRAN through several sub-flows. These sub-flows correspond to the NAS service data streams that have QoS characteristics that differ in a predefined manner within a RAB e.g. different reliability classes.

The liaison is noted.

~~1.1.14~~4.3.14 Tdoc 540 / LS on Comments on QoS report (source RAN WG3)

RAN WG3 sends some questions to SA WG2 on the QoS report which had been sent to RAN WG3. No major contradictions are seen with WG2 assumptions

The liaison is noted, no reply is asked from RAN WG2.

~~1.1.15~~4.3.15 Tdoc 541 / LS on Principles on Uu protocol specifications (source RAN WG3)

RAN WG3 requests RAN WG1 and RAN WG2 to make sure that the radio interface protocol specifications contain only the aspects relevant from the UE point of view, using well defined concepts of the radio interface (such as cells, URAs etc) and do not include references to the UTRAN internal architecture (such as Node B, CRNC etc).

Discussion:
- It was pointed out that at the moment the model separating the different RAN nodes is useful for the radio interface protocol work.
- The chairman noted that especially 25.303 has distinctively two parts. The state descriptions in 25.303 belong to RRC, while the interlayer operation is examples. Now that the documents have been approved, WG2 will probably have to continue at least until October with this structure of documents.

Document noted.

~~1.1.16~~4.3.16 Tdoc 542 / LS to TSG RAN WG2 on high level principles for Cell Mobility and URA Mobility management over Iur (source RAN WG3)

RAN WG3 has reached a conclusion on the high-level principles related to cell and URA mobility management. A number of points clarifying the routing of these messages is given in the liaison.

Discussion:
- NTT DoCoMo commented that there is no Cell Update Reject currently in the group documentation. The view in WG2 was that the liaison is not a request to add one, but that it should be separately discussed.

Ericsson and Nokia have contributions addressing the topic.

A liaison will be sent back, possibly noting any differences with the points addressed by WG3.
[Secretarial note: Does this liaison exist?]

~~1.1.17~~4.3.17 Tdoc 543 / Separate delivery of Transport Blocks within a Transport Block Set by MAC-d to L1 (source RAN WG3)

R3 has identified a possible need for delivery by MAC-d to L1 of each TB separately. The present model in 25.302 is to give one request for a TBS. The liaison asks if this can be split into separate TB:s.

Discussion:
- Ericsson noted that the WG2 model of transmitting a TBS doesn't bind WG3. The reason to send a complete TBS in the WG2 model is to indicate that it all needs to be delivered to L1 together. If a split is needed for UTRAN interface transportation, that can be done without influence to the WG2 model.
- The chairman noted that it will make the WG2 and WG3 models look less compatible and more difficult to understand. One possible error case with the WG3 assumptions is a missing TB from a TBS, which might not correspond to a valid TFCI. Whether such errors need to be addressed by the standard, is not fully clear, as they could also be left over to implementation.

A reply is to be sent when related contributions have been addressed.

The liaison is to be prepared by Ericsson as tdoc 695.

~~1.1.18~~4.3.18 Tdoc 550 / Proposed Liaison Statement on Identification of Multicall Bearers (source N WG1)

TSG N1 has agreed on a working assumption to introduce a new parameter (called Stream Identifier, SI) in the upper layer protocols (CC, SM) . This stream identity parameter needs to be linked to the associated transmission bearer that is identified by the RAB-id in the core network edge nodes (MSC, SGSN) and the RNC and also to the radio resource connection (RRC) to the UE. The correct association is required both at the time of initial traffic channel assignment and after the handover of the RRC connection.

TSG N1 is concerned that there may be some impact to the RRC and RANAP protocols in order to support this linking mechanism, and thought it would be useful to make the RAN groups aware of this requirement at this early stage.

RAN2 and RAN3 are requested to consider the above issues when developing the RRC and RANAP protocols for UMTS.

Discussion:
- It was not entirely clear whether the operation is transparent or if something would need to be added.
- Ericsson pointed out that there is an information element in the RRC protocol which can convey the CN ID information.

4.3.19 Tdoc 637 / Support of Speech Service in RAN (source S4 Codec Working Group)

TSG-S4 would appreciate to receive comments from TSG-RAN working groups on their plan for the completion of the specifications related to the support of the speech service over the 3G-access network. TSG-S4 would also appreciate to receive comments on the proposed procedure for the production of the required Error Patterns, before our next meeting in September 8-10, 1999.

RAN WG2 will need to work on the transport characteristics of the speech codecs.

The document is noted.

~~1.1.20~~4.3.20 Tdoc 638 / Error resilience in real-time packet multimedia payloads (source S4 Codec Working Group)

This liaison statement provides some basic information with respect to the error resilience of different encoded media streams. It is provided as a contribution to the debate on the benefits of unequal error protection support for real-time packet multimedia services.

The document is noted.

~~1.1.21~~4.3.21 Tdoc 639 / Draft LS on use of Ciphering Mode Command as a CM Service Accept (source CN1)

One issue is the use by GSM MSCs of the A interface Cipher Mode Command to instigate both ciphering and to carry the “CM Service Accept” information to the mobile.

The topic is seen to be a point of discussion for the joint meeting in August. It will be addressed again after that meeting. The document asks if mobiles simultaneously using both SGSN and MSC have any particular problems in this area?

~~1.1.22~~4.3.22 Tdoc 640 / Liaison statement of continuous work on terminal capabilities (source T2)

T2 is asking some further questions related to FDD / TDD / GSM single-mode / dual mode / triple mode terminal capabilities. Furthermore R2 is requested to identify what Logical Channels and Transport Channels are used with MAC as mandatory for terminal implementation. T2 also expects not only procedures but also messages and parameters of RRC will be identified as mandatory or optional capabilities for terminals.

The chairman noted that this WG2 meeting should decide how mandatory capabilities will be described.

The document is noted, because it is hard to reply at this point.

~~1.1.23~~4.3.23 Tdoc 641 / LS on using identifiers for SDL branches (source T1)

TSG T1 has identified that (descriptive) SDL has been introduced into the 3GPP specifications. It is not sure whether the test cases can be automatically generated from the descriptive SDL specifications. At the moment, it is assumed that the protocol and signalling test cases are manually designed by the TSG-T1 signalling subgroup. However, things may be changed when the SDL specifications are seen. Some computer-aided tools may be eventually introduced. For TSG T1 to be able to reference SDL branches and paths when conformance requirements are identified there are a need to include identifiers in the SDL graphs. TSG-T1 asks TSG RAN2 and TSG CN1 to include identifiers for SDL branches in the SDL specifications.

Discussion:

- The need to identify what is meant by a branch was noted. The requirement is to have a way to bind a test with a protocol spec. It was noted that there may be several tests related to a branch. At the moment the tests refer to spec paragraph numbers and have the text copied and pasted where applicable.

The document is noted.

~~1.1.24~~4.3.24 Tdoc 666 / Proposed Liaison Statement on the Paging response message categorization (source: TSG N-1)

Ericsson noted that there are no changes required to the existing procedures implied by the liaison.

No reply is prepared now and the subject will be discussed in the joint meeting on 23rd of August.

~~1.1.25~~4.3.25 Tdoc 670 / Liaison statement to TSG-R2 & TSG-R3 on CM-SERVICE-REQUEST for multicall (source CN1)

The joint ad hoc meeting of TSG-N1, TSG-N2, TSG-S1 and TSG-S2 on multicall and multimedia calls has discussed contributions on the handling of call setup for subsequent calls in a multicall configuration. It was agreed that for the first CS call a CM-SERVICE-REQUEST is required – this is exactly similar to the handling for the setup of a CS call in the GSM environment. However for subsequent calls it is not obvious that a CM-SERVICE-REQUEST is required; certainly the handling in the MSC/VLR for call establishment (described in GSM 03.18) does not require a CM-SERVICE-REQUEST for each subsequent call. TSG-R2 and TSG-R3 are asked to consider whether there is a functional requirement in the BSS/UTRAN for a CM-SERVICE-REQUEST for subsequent calls in a multicall configuration.

A reply will be prepared by Ericsson (Tdoc 685) indicating that the message is transparent to R2, so no changes are necessary and no impact is seen.

~~1.1.26~~4.3.26 Tdoc 673 / draft LS to RAN WG 3 and RAN WG 2 on Release '99, MSC issues with GSM 04.08 (source [TSG-CN1] Vodafone)

The liaison addresses the interworking of UTRAN with GSM MSCs (and SGSNs), particularly at the 04.08 CM and MM levels. It is seen that GSM MSCs are not totally independent of the radio interface and so the UTRAN may well have to adapt to at least some of the MSCs' peculiarities. TSG CN1 believe that the issues listed in the liaison need to be considered.

Documents on the topic are invited for the next meeting, the liaison will also be resubmitted. A joint meeting in August will address these topics.

~~1.1.27~~4.3.27 Tdoc 671 / Requirements and constraints on the ciphering algorithm (source 3GPP TSG S3)

The liaison presents questions on the length parameter. It is hoped that these issues can be resolved in the RAN2 email discussion group established at the recent joint RAN2/S3 meeting on ciphering in Berlin on 25 May and confirmed to RAN plenary as soon as possible.

Maximum number of RLC-PDU:s in a 10ms physical layer frame should be clarified. The theoretical limit allowed by the protocol is extremely high, but the current expectation is that no more than 64 RLC-PDU:s per frame would be needed. This number is derived by dividing 20480 by 320.

A reply will be prepared by Vodafone as Tdoc 686.

~~1.1.28~~4.3.28 Tdoc 676 / TSG-N3 would like to inform the addressed groups in 3GPP about the current status on its work on CS data services (source N3)

A number of issues are presented for different groups. R2 is proposed to take current and future requirements on the RLC in Tdoc N3-152 into account.

No issue was found in the document.

~~1.1.29~~4.3.29 Tdoc 679 / Comments on RAN2 CR 003 to 25.301 (source 3GPP TSG SA3 (Security))

SA3 notes RAN2's CR 003 to 25.301 which resulted from agreements made at the meeting and regrets that it could not examine the document until its meeting on 16-18 June. Having examined the document, SA3 presents some comments.

Vodafone will prepare a CR to 25.301 based on the liaison.

~~1.1.30~~4.3.30 Tdoc 681 / Liaison statement on Cell Broadcast Service in UMTS (source TSG SA2)

TSG SA2 started the architectural discussion on the realization of the cell broadcast service in UMTS.

A reply is sent copying WG1 and WG3 that a decision on using the FACH has been made, so no impact on interface 3 is seen. The reply will be prepared by Mannesmann Mobilfunk as Tdoc 687.

~~1.1.3~~4.3.31 Tdoc 697 / Liaison Statement on Timing Advance (source RAN WG3)

The liaison will be studied again at the next meeting since the answers don't exist at the moment.

~~1.1.32~~4.3.32 Tdoc 698 / LS to TSG RAN WG2 on Asymmetric reconfiguration procedure - feasability over Iub and Iur (source WG3)

Tdoc 620 proposes changes to this passage in 25.303. Other changes from tdoc 620 agreed, the FFS-notes remain until a reply from WG3 is received and the procedure can be agreed.

5. Results of e-mail discussions

5.1 Tdoc 524 / Report of e-mail ad-hoc on tabular format email discussion (source: Rapporteur (Nokia))

The report was presented by the rapporteur (Nokia). In the tabular format discussion a consensus on the tabular format to be used in WG2 was achieved. The resulting description is presented in the next clause. However, there is no consensus on what the status of the tabular format descriptions should be. One thing the participants of the discussion do agree on is that tabular format should be used in the specification phase to describe the messages.

Discussion:

- Ericsson asked a question about the mandatoriness for the parameters indicated as M in the tabular format. They are to be treated as mandatory parts of the message. A non-mandatory message can have a mandatory field.
- Range was clarified to describe the number information elements that can be found in the message.
- The IE Type and reference are then given in a separate section.

Chapter 2 is included into TR 25.921. How to use the tabular format is to be discussed later in the meeting.

~~1.2~~5.2 Tdoc 525 / Report of e-mail ad-hoc on 25.331 enhancements (source: Rapporteur (Nokia))

The report was presented by the rapporteur (Nokia). The following table summarises the outcome of the email discussion for topics introduced in each contribution.

No	Topic	Status	
[1]	UL Target SIR for DPCH initial power setting	Discussion to be continued	Needs to be discussed further and confirmed in WG1.
	Parameters for PRACH initial power setting	Partly agreed	It was agreed to update the list of PRACH power control parameters according to the current version of TS 25.214. The proposed removal of UL interference, UL target SIR and DL tx power needs to be confirmed in WG1, so it is not included it in the CR.
	Inclusion of DL target SIR to report quantities	Discussion to be continued	
[2]	CN Domain identifier in CN information elements.	Agreed	No objections to the contribution were raised.

[3]	DRAC procedure	Discussion to be continued	Alcatel will resubmit the contribution.
[4]	RRC CONNECTION SETUP COMPLETE message	Agreed	The contents of this contribution were concluded for 25.303 in the document tdoc 416. The agreed parts were included in the CR. The UE information elements were removed from the PDU.
	RAB and TrCH identities in complete messages	Agreed	It was also discussed whether the RAB and tr ch identities need to be included in complete messages and it was concluded that they should be removed from all complete messages. All complete messages were edited and included in the CR.
[5]	Removal of division into active set, neighbour set and candidate set + other changes to section 8.3.7	Agreed.	Definitions of active set and monitored set added.
	Intra-frequency measurement and reporting quantities	Partly agreed	Parts of the suggested sections were included, but FFSs were added to reflect the current situation in the discussion on the measurement and reporting quantities.
	- PCCPCH enters the reporting range (event 1A) - PCCPCH leaves reporting range (event 1B) - Non-active PCCPCH becomes better than active PCCPCH (event 1C) - Change of best cell (event 1D)	Partly agreed	Events were agreed. Whether or not it should be specified if events 1A and 1B can be triggered by cells either in the active set or monitored set was left FFS. Event 1C is controlled with a "replacement activation threshold" and event 1A can be controlled with a "reporting deactivation threshold" parameter.
	-PCCPCH becomes better than absolute threshold (event 1E) -PCCPCH becomes worse than absolute threshold (event 1F)	Discussion to be continued	
	Hysteresis Time-to-trigger Cell individual offsets	Agreed	It was concluded that cell individual offsets shall be conveyed inband in measurement control messages.
	Forbid a PCCPCH to affect the reporting range	Discussion to be continued	
[6]	Traffic volume reporting event and reporting mechanisms	Agreed	
[7]	Measurement events 1A, 1B and 1C	Agreed	Merged to Ericsson's contribution
	Definition of which cells to include in measurement reports	Discussion to be continued	
	Event-triggered periodic measurement reports	Discussion to be continued	
	Maximum size of active set	Partly agreed	Split into two parameters "reporting deactivation threshold" and "replacement activation threshold"
[8]	Limitations to BCCH measurement parameters	Discussion to be continued	

[9]	Assignment of SSDT Parameters	Discussion to be continued	There were no comments to this document and the contribution calls for evaluation in order to choose the preferable method. Therefore, no conclusion was reached.
[10]	RACH measurement reporting	Agreed	It was concluded that measurement quantity should not be restricted to E_C/I_0 and that the concept should apply to RRC connection re-establishment and UE originated call setup as well.
[11]	Gated transmission parameters	Discussion to be continued	The gated transmission concept was classified as FFS in WG1#5 and that is why the contribution was not incorporated into the CR.

Note 1 and Note 2 were proposed to be deleted from 10.2.7.22 Intra-frequency measurement reporting criteria, but they should still remain FFS, so this part will be changed for incorporation to 25.331.

~~1.3~~5.3 Report of e-mail ad-hoc on RRM strategies

The rapporteur (CSELT) noted that a number of documents had been distributed but no discussion on the reflector had taken place, so no report was presented. Tdoc 526 is withdrawn.

~~1.4~~5.4 Tdoc 527 / Report of e-mail ad-hoc on Random Access requirements and procedure (source: Rapporteur (Motorola))

There was reportedly very little discussion on the reflector regarding RACH back-off algorithms, in the report the salient discussion items are presented.

Discussion:

- Philips asked a question on the notation in the report. It was clarified that A refers to FDD and B to TDD.
- There was a comment noting that it is hard to specify a backoff algorithm when a number of other items are still unsolved.

The document is noted, the subject will be discussed further in the meeting.

~~1.5~~5.5 Tdoc 528 / Report of e-mail ad-hoc on Broadcast/Multicast services (source: Rapporteur (Mannesmann Mobilfunk))

Email discussion was focused on GSM cell broadcast. The report proposes to initiate an ad-hoc for producing input to agenda point 15.3. If not enough people volunteer for this ad-hoc, the proposal is to present R2-99485 (or a revision of it) under agenda item 15.3 and continue the discussion on the reflector.

Whether the interface is external or the Iu is not necessarily the concern of WG2.

The chairman noted that it has to be decided which layer has to send the DRX in particular. The document is noted and it shall be checked later which documents are addressing the topic in the meeting. This topic needs to be finalised quickly because it is an architecture aspect. A new version of Tdoc 485 can be produced by Mannesmann Mobilfunk for Friday for discussion.

~~1.6~~5.6 Tdoc 647 / 3GPP Review of Email discussion on Size and Range of RLC/MAC PDU's (source: Rapporteur (Vodafone))

In the acknowledged mode (single PU) PDU sizes were discussed up to 1024 bits in length. However, it was deemed in practice that (single PU) PDU sizes of approx. 300 bits would be used as these can be most effectively handled by retransmission schemes. This size limit is based on the assumption of having only one PU within a PDU. Moreover, if an extension scheme is used then substantially larger (multiple PU) PDU sizes are possible.

It is claimed that in UM turbo codes can handle 20000 bits efficiently, but in practice limits of the order of 3000 bits were deemed most appropriate.

The document was noted, no conclusions were given yet. Further discussion will take place in this meeting.

Discussion:

- Question on the direct transfer: Is it absolutely necessary to append measurement information to direct transfer? It was clarified that the proposal is to be able to include measurement information into direct transfer of upper layer messages on RRC level.
- Comment from NTT DoCoMo: In bullet points before 8.3.7.1 it is said that "DIRECT TRANSFER sent uplink to establish a signalling connection", but more cases for using direct transfer were addressed in the email discussion. When a UE is communicating with a CN node and an additional call is to be added, the RRC substate may change. In that case direct transfer can be used to append measurement results. The chairman asked how does the terminal know that a move to DCH / DCH is to be executed? One way to resolve would be to allow a measurement report to be appended to any RACH message. **An FFS will be added to the proposal noting that this may not be the full list of events.**
- Comment from Ericsson: In 8.3.7 for the section: "After sending the initial random access message, the UE may continue measurements performed in idle mode until a MEASUREMENT CONTROL message is received from UTRAN. This message indicates e.g. the parameters to be used for monitoring in connected mode." **The word "may" should be replaced by "shall".**
- The chairman asked about what is seen as the direct transfer because the corresponding GSM CM message is not entirely transparent. One question is how does the RNC know that a signalling connection is to be established. Ericsson commented that the first direct transfer sent to a CN domain means that an Iu connection is to be set up. The chairman noted that this may contradict a higher layer requirement because the terminal should not know from which domain a request is coming. In the future the UE may not be selecting the domain. This could be a topic for a discussion in SA2 when the joint meeting takes place.
- From NTT DoCoMo: The necessity of SSDT information in one of the messages. For the time being it is kept as it is, future contributions can address the topic.

With the changes indicated here the document is agreed to be incorporated into 25.331.

6. Contents of release 99

No clear decision on RAN plenary level has been reached on how to treat issues where assumptions in different groups are not equal.

- The DSCH without an associated DCH for FDD is not supported in the –99 release.
- The FAUSCH as a physical channel is still under discussion in WG1. WG2 waits for WG1 decision on whether FAUSCH is part of release 1999 or not. ~~The FAUSCH as a physical channel will not be supported in the –99 release. FAUSCH can be kept on the transport channel level, but a note should be incorporated saying that full support is not in release –99.~~
- Type – II / III hybrid ARQ is not supported in release –99.
- MAC peer-to-peer signalling not decided upon yet.

Some items have already been agreed for future releases. These should be noted in the documents.

Aspects on release –99:

- Unless specifically said otherwise, all that is in the documents is for the –99 release.
- The hooks will be parts of the baseline capabilities of a terminal.
- Timing advance for TDD is in release –99.
- For the DSCH there is DSCH + DCH, which remains. From WG3 there's a liaison saying that one case will not be in the release –99.

Ericsson commented that limiting the number of options on DSCH to be worked on would ease the burden for WG3 on release 99. Also some handover cases may need special attention.

7. Completion of 25.302

7.1 Measurements provided by the physical layer

7.1.1 Tdoc 583 / Physical layer measurements (source Ericsson)

The document proposes the following measurements to be performed:
- Intra-frequency: Ec/No, RSCP, ISCP, Pathloss, SIR
- Quality measurements: BER and BLER, SIR
- UE internal measurements: UE TX Power , UE Positioning, RSSI
- UTRAN measurements: Total DL TX power and UL interference, DL Code TX power

Discussion:

- Nokia asked on 3.1, if it is the intention that all measurements shall be mandatory for all the UE:s. Ericsson confirmed.
- DoCoMo asked on quality measurements, how BER could be measured. Ericsson clarified that after error correction comparison with L1 could be done. This was questioned. If L1 doesn't find a way to do it, that is a different question, but the requirement should be included.
- Whether there is need to be protected against a UE that is too close to a base station was questioned.
- LGIC asked if there is any possibility for conducting measurements for TX Diversity. Ericsson replied that this has not been considered.
- Philips asked if it is possible to measure interference on the dedicated channels and random access channel? Ericsson replied that it would be a good feature but that they are not sure if it would be possible.
- Motorola expressed concern on ISCP and RSCP measurements, which may require complete despreading of primary common control channels, so these should perhaps not be mandatory for the UE. Also timing for slotted mode may not be sufficient to do these measurements.The concern was further specified to be the hardware impact.
- Nokia commented that L1 has also evaluated these measurement quantities and noted that Ec/No is the fastest and easiest to measure. Concern expressed over the cost increase if including SIR and ISCP.
- Siemens asked if all these measurements are mandatory, and are they also proposed to be mandatory for TDD? Ericsson replied that the answer is yes, the intention is also to include TDD.

Further discussion, see 7.1.4 below.

~~1.1.2~~7.1.2 Tdoc 608 / Cell Monitoring Strategy for Handover and Cell Reselection in UMTS (source Nokia)

In this contribution the benefits of using the PCCPCH Ec/Io for handover and cell re-selection monitoring are presented and requirements for the specification of measurement quantities are proposed.

Discussion:
- The document says the BCCH needs to be decoded only once. It was further clarified that the parameters would have an expiration time, but that would be long enough so that no major impact to the standby times would be caused.

- Philips asked how the neighbouring cells are recognized if the BCH is not decoded. It was clarified that the scrambling codes are available in the neighbouring cell list.
- CSELT commented that the proposal may have impact on RRM strategies because excluding the possibility to decode the BCCH restricts the use of some RRM algorithms. There are contributions related to that aspect for the RRM strategies.
- DoCoMo noted that there may be a need to look at the SFN. DoCoMo has a contribution addressing the topic, there's also a relation to a liaison from WG3. Nokia clarified that the proposal is not to decrease the power in the BCH.

For further discussion, see 7.1.4 below.

~~1.1.3~~7.1.3 Tdoc 649 / Measurements provided by the physical layer (source: Nortel)

This contribution provides text to further detail in section 9 "Measurements provided by the physical layer" of TS 25.302 (V2.3.0), *Services provided by the Physical Layer*. Subject to conclusion of WG1 on the harmonization, the measurements on the CCPCH are proposed to be replaced by measurements on the continuous pilot channel.

Motorola: One of the measurement quantities was the time difference to a GSM cell. What would exactly be measured and what would that measurement be used for? Nortel had written that down to assist in doing a handover, but there is no explanation on how that would precisely be used.

NTT DoCoMo asked about the use of compressed mode. The chairman replied that compressed mode is still under discussion on the physical layer. In some cases it may not be easy to use it.

Siemens asked a question on the 9.3.1.2 timing advance, if the precision requirement could be further clarified. The requirement of 0.5 chips was seen to be too small. The precision was clarified to come from location service requirements, where the precision of half a chip would account for approx. 18 m. The requirement in the report at the moment is 50 m for location services. The chairman noted that it should be similar for FDD and TDD, because the chiprate is the same for TDD.

Ericsson asked if the proposed tables need to be in 25.302 in the end. Some precision requirements will probably be specified by WG4. The chairman noted that this group should still define the requirements from the higher layer point of view. It was seen that this varies from parameter to parameter. The need for the destination in the tables was also questioned. The chairman commented that the tables could be corrected to have the protocol printed first, but still the destination was seen to be helpful. On the reporting trigger it was questioned whether the trigger is for L1 or for the RRC sending the report. It was discussed where the triggers would be described. 25.302 was concluded to be for physical layer, so the information in that document would specify to L1 when to report.

Section 9 was commented to have no measurements listed as mandatory, bute still some were listed to be critical for the operation of the network. The explanation was that the network may decide to use any value, but the UE should support those measurements.

Motorola asked if location services would be mandatory for release –99. The chairman clarified that at least one method should be mandatory, later other ones can be added.

For further discussion, see 7.1.4 below.

~~1.1.4~~7.1.4 Discussion on tdocs 583, 608, 649

Nokia's proposal for BCH decoding:

Discussion:

- Motorola: On the second point it should be indicated that this wouldn't preclude the possibility of decoding more than one BCH when applicable.

- Ericsson clarified that for doing the measurements no decoding of the BCH should be necessary. For synchronisation or random access there would be a need to read the BCH.
- CSELT commented that a sentence allowing more frequent reading of BCH should be added as it is premature to exclude that possibility. The chairman commented that the power consumption of the terminal is under the control of the network anyway.

The two requirements set by Nokia were principally agreed, some changes reflecting the discussions will be proposed by Nokia in Tdoc 655 for inclusion into 25.302.

The list of measurements to be supported by the standard:

Discussion on the list of measurements will be continued on a common proposal that is to be prepared by Ericsson and Nortel Networks as Tdoc 658 (below).

~~1.1.5~~7.1.5 Tdoc 658 / Measurements provided by the physical layer (source Drafting group)

An editorial change in the second paragraph should be done to remove the reference to a Tdoc.

9.1.1 Measured time difference to UTRA cell. The chairman asked if the target could indicate the node as well. Currently it doesn't. Not mandatory in baseline capabilities, but in the service capabilities related to the LCS service and DCH. The rationale is changed to reflect that the measurement "can" be used by LCS instead of saying that it "is" used. Source changed to "UE or LMU".

9.1.2 Measured time difference to GSM cell. In the service capabilities of a dual-mode terminal.

9.1.3 Primary CCPCH Tx Ec/Io striked out.

9.1.3 Primary CCPCH RX Ec/Io. The expanded part in the rationale is copied from Nokia's input on the subject. Mandatory in the terminal.

9.1.4 Primary CCPCH RX SIR. Motorola would like to consult L1 on the complexity. Nokia agreed with Motorola and commented that the arguments related to the mandatoriness are not in the scope of WG2. Ericsson commented that the requirement can be set, letting L1 respond if providing the measurement is complex. The note is removed, the question on the mandatoriness of this measurement will be pointed out in the liaison.

9.1.5 Primary CCPCH RX RSCP. The measurement is agreed and mandatory.

Ec / Io not taken.

9.1.6 Primary CCPCH RX ISCP. The measurement is agreed. As requested by Nokia, here also an editor's not will be added to WG1 to ask about the complexity involved.

9.1.7 SIR. The measurement is agreed and mandatory. DPCCH is added to the name.

9.1.8 Signal strength alternate mode (RSSI). Name changed to GSM Signal Strength. Belongs to the service capabilities of a dual-mode UMTS/GSM terminal.

9.1.9 Signal strength (RSSI). Title changed to "UTRA cell signal strength (RSSI)". The measurement is approved and mandatory for the terminal

9.1.10 Transport CH BLER. Measurement agreed and mandatory for both uplink and downlink.

9.1.11 Transport CH BER. Siemens commented that the definition currently is complicated and does not reflect the operation that is being performed. Definition changed to "The raw BER of the physical channel calculated on the data part.". Title changed to "Physical CH BER". The destination modified to UE(RRC) and RRC (RNC). Measurement agreed and mandatory.

9.1.12 Total Tx Power. Measurement agreed, as it is in Node B no mandatoriness is defined.

9.1.13 Code Tx Power. Measurement agreed, measured by Node B.

9.2.1 UL load. The definition added from the E contribution: “The total received signal power for a given frequency of a cell”. Rationale changed to “…signal power at the Node-B on a carrier of a given cell used…”

9.2.2 UE Tx Power. The place where the power is measured (antenna connector) was added to the definition. Release of the RRC connection was added to the possible trigger events. The measurement is agreed and mandatory

9.3.1 Parameters for UE Positioning (LCS). Lists Timing Advance (TA), Relative Time Difference (RTD) and Frequency Offset (FO). The sentence saying “These measurements are reported to the LCS entities in the UTRAN” is deleted.

Motorola commented that there are a number of different ways the location services can be provided. Agreement on this should be sought in a forthcoming email discussion, where the experts on the subject from each company could get online to work on it. A note will be inserted saying that the decision for including any of these measurements into specification of the –99 release is pending further agreement.

9.3.1.1 Timing Advance (TA). Renamed to Time of Arrival (ToA) measurement. The definition changed to “Time of arrival of the uplink transmission compared to the primary CCPCH time reference.” The difference to the “time difference of arrival” was discussed. The measurement is agreed.

9.3.1.2 Relative Time Difference (RTD) deleted, as it was seen to be covered by 9.1.1 already.

9.3.1.3 Frequency Offset (FO). The measurement is agreed.

~~1.1.6~~7.1.6 Tdoc 655 / Modified Proposal for "Cell Monitoring Strategy for Handover and Cell Reselection in UMTS" (source Nokia)

An update of Tdoc 608.

“Common channel state” changed to “RRC Connected Mode using common Transport Channels”. Note on UE standby times changed to “not significantly decreased”. Some editorial corrections to the middle part of the “handover measurements” paragraph. In the 3rd line of the same paragraph “shall” changed to “should”. Next paragraph, “…without being required to frequenctly decode parameters on the BCCH logical channel of the monitored neighbouring cells.”

~~1.2~~7.2 *Primitives of the physical layer*

7.2.1 Tdoc 546 / MAC PDU Coordination with Air Frame Transmissions (source Interdigital)

It is proposed that the Cell Frame Number (CFN) is used by MAC-p (PCH), MAC-sh (USCH&DSCH), MAC-c (RACH&FACH) and MAC-d (DCH) for coordination of physical transmissions. It is intended that this parameter is set only when a specific air frame transmission is required.

The change is approved.

~~1.1.2~~7.2.2 Tdoc 547 / Channel Indicator for Identification of Transport Channels (source Interdigital)

A unique Transport Channel Indicator (TrCH) is proposed to differentiate transport channel data streams.

The chairman commented that Nortel has looked into the subject and they are not sure it is needed on that level of detail. It is needed in a number of different primitives, if it is defined in the model.

Ericsson counterproposed not to include the parameter in this level, because the channel is identified on the level of AAL2 connection

Into the start of the primitives section it will be written that all addressing aspects are excluded from the primitives in 25.302. Only logical aspects are addressed, not the addressing.

~~1.1.3~~7.2.3 Tdoc 548 / TDD Primitives for Indication of DCH Establishment and Release (source Interdigital)

CPHY-Established-IND and CPHY-Released-IND are suggested to replace Sync and Out-of-Sync.

IDC noted that in TDD the transmission is synchronised all the time.

Siemens clarified that in TDD synchronisation on a similar level as in FDD is not needed. In TDD situations can occur where there is no direct relation to the previous TDD transmission. If such a situation occurs, actions on the physical layer are needed.

The chairman did not see a major difference between FDD and TDD in the synchronisation aspects. The clarification of these primitives was seen to be necessary. Interdigital will propose some text later in the meeting (tdoc 659).

~~1.1.4~~7.2.4 Tdoc 659 / "Clarifications on CPHY-Sync and CPHY-Out-of-Sync primitives" (source Interdigital)

Proposes additions to the definitions of CPHY-Sync and CPHY-Out-of-Sync.

The contribution is approved.

~~1.1.5~~7.2.5 Tdoc 630 / Text proposal on Variable Rate Packet Transmission for TS25.302 (source Panasonic)

The addition of a parameter known as "Allowable transmission power" to primitives CPHY-Measurement-REQ and CPHY-Measurement-IND in 25.302 is proposed.

Discussion:

- Ericsson asked how average transmission power is defined. The chairman commented that it doesn't need to be defined in WG2 how long the averaging time is.
- It was asked and clarified that the proposed parameter is only intended for the request.
- Philips commented that there is currently two different parameter names (the STATUS from L1 currently indicates that this maximum power has been reached). The editor will align these.

The proposed change is accepted, with the change of the parameter name to: "transmission power threshold" and the addition of "REQ only".

~~1.1.6~~7.2.6 Tdoc 648 / Primitives of the physical layer (source Nortel Networks)

The document proposes enhancements to the descriptions of physical layer primitives.

Discussion:

- Mannesmann Mobilfunk commented that the request, confirm etc. columns in the tables are redundant because the type of the primitive is already listed in the primitive name.
- The chairman further clarified that for peer-to-peer communication only request and indication are used. Confirmation is used in interlayer communication.
- It was questioned whether the definitions of request etc. would be needed in this document. The proposal was to exclude that part from 25.302 in order not to conflict with other definitions. Nortel replied that the main purpose was to explain how the primitives are used for future releases.
- Ericsson commented that the CRC check result from the data request should be removed from 10.1.1.
- In response to a question from Ericsson the chairman noted that the main non-editorial change is to delete FFS:s. Striking out the FFS means that the primitives are, for now, complete. No parameters have been added.
- The CPHY-Commit-REQ primitive was commented to have been added, as it was included in 25.303 already. The relation of this and RL and TrCH config / setup primitives to WG3 signalling should be clarified.
- Ericsson questioned the need for 10.3.3, because currently it is not aligned with the information in 25.331. A reference to the RRC specification could be given. Ericsson proposed to discuss it in 25.331 for the time being and update it into 25.302 when it is stable. Siemens made a counterproposal to keep the table. LGIC is willing to provide an updated version.
- Siemens noted that CPHY-Connect and CPHY-Disconnect are proposed to be completely removed in the proposal. The primitives will be deleted unless there is an updated description during the meeting.
- A question on section 10.3.4: Why should the BCH have a TFS? Ericsson commented that there always has to be one BCH with fixed-rate. It can then be discussed whether a second common channel is an FACH or the BCH.
- GBT asked if the intention of 10.3 is actually to define all the parameters described in the section. It was clarified that RRC is the normative part and the 25.302 description is a logical description. In that sense 10.3.3 is a physical channel parameter list.
- It was discussed where the different layers terminate. Iub for dedicated channels was seen by Ericsson to be between WG1 and WG3. It was pointed out that nothing on that is described on those documents. A good proposal to clarify things would be welcome.

Middle columns from tables referring to req, ind etc. will be removed. Addressing will be removed. Table in 10.3.4 will be removed. Table 10.3.3 is kept for now, if no revised table by the end of the week is available it will be deleted. CPHY-Connect and CPHY-Disconnect are to be removed for now. For the descriptions of the different primitive types new text will be proposed by the editor in 25.302 that is to be reviewed before the end of the meeting.

Nortel will produce an update as Tdoc 662. It will distributed on disk but not brought up on the agenda again.

7.2.7 Tdoc 573 / Proposal of Default DPCH Offset Value (source NTT DoCoMo)

The contribution proposes an offset value within interleaving size at a resolution of 512 chip (1/5 slot) to offset CFN in the UE. This is used to distribute discontinuous transmission periods in time and also to distribute NodeB-RNC transmission traffic in time. The contribution is presented under this agenda item because it is related to the primitives from RRC to physical layer.

Discussion:

- Clarification on the range of the parameter was requested. Range is ~~18~~ 80 ms, granularity is every 512 chips. Support for the proposal was said to exist both in WG1 and WG3.
- It was questioned if CPCH would need some further attention. Ericsson commented that 512 chips is what is needed to keep orthogonality, it doesn't have anything to do with the spreading factor. Spreading factor 512 works with no problems with the offset, so also CPCH should be covered.
- The parameter was clarified to be mandatory for the UE to support. The network can decide not to use the parameter.

- Ericsson asked about possible effects to ciphering, as resetting the connection frame number (CFN) may lead to the data being transmitted with the same ciphering. The chairman clarified that for the procedures indicated here no incluence to ciphering would be caused.

The RL Configuration primitive was concluded to be the one that should include the DPCH offset value.

7.2.8 Tdoc 574 / Definition of Measured Time Difference to Cell (source NTT DoCoMo)

This document proposes to correct the definition of "Measured Time Difference to Cell".

The proposed change was approved.

7.2.9 Tdoc 660 / CR to 25.302 on Parameters of PHY primitives (source LGIC)

Updated text is proposed for section 10.3.3 in the physical channel description in 25.302.

Discussion:
- On the DRAC info the need for the $T_{validity}$ parameter on the physical channel was not certain.
- On FAUSCH Philips commented that the preamble code is a bit misleading, as also the preamble signature is needed. First three entries of the PRACH are taken for FAUSCH.
- GBT noted that the nomenclature of PCPCH has changed somewhat in WG1 discussions and should be reviewed from Tdoc 598.
- A note will be added that a review is necessary for the applicability to TDD.
- On PRACH the message scrambling code is removed and declared to be derived from the preamble spreading code.
- On AICH a note is added saying that the parameters need to be consistent with PRACH.

The uplink and downlink DPCH become:

10.3.3.1 Uplink DPCH
- UL scrambling code
- DPCCH channelisation code
- DPDCH channelisation code
- DPCCH Gate rate
  - DPCCH slot structure (N_{pilot} N_{TPC} N_{TFCI} N_{FBI})

10.3.3.2 Downlink DPCH
- DOFF
- DPCCH Gate Rate
- DL scrambling code
  - DL Channelisation code
- Tx diversity mode
  - FB mode
- Slot structure (N_{pilot} N_{TPC} N_{TFCI} N_{FBI} Ndata1, Ndata2)

With these changes the document was approved.

Motorola will draft the cover page note for the 25.302 to be provided to L1.

7.2.10 Tdoc 688 / Usage of PHY-CONNECT primitives in TDD (source Siemens)

The connect primitive in 25.302 is proposed to be kept.

D/USCH should be added as TDD-only into the parameters. The CONNECT-primitives are not re-introduced.

7.3 UE Simultaneous Physical Channels combinations

7.3.1 Tdoc 627 / Text proposal for 25.302 on UE Simultaneous Physical Channel Combinations (source Motorola)

Proposes tables describing the possible combinations of physical channels that can be supported in the uplink or downlink by one UE at any one time.

Discussion:

- Siemens asked why some channels are listed here, as it is seen as restrictive. Motorola clarified that the contribution was written from FDD point-of-view. The set in the tables is meant to be exhaustive, where some UE:s would only support a subset of it. Siemens proposed to take the table as a basis for further discussion and come back later on.
- One case was commented to be missing related to DRAC. This will be added (DCH + FACH received together in the downlink).
- Changes reflecting the part that DCH is not included in the baseline capabilities should be added.
- GBT commented that text reflecting the use of CPCCH should be added.
- Ericsson commented on row 5 in downlink that the PCH is not mapped to PICH. This should be described in an alternate way.
- NTT DoCoMo asked on Downlink 4, if there can be more than one SCCPCH? Motorola replied that some cases have been seen where it would be possible to have more than one FACH. It could be used in connection to SMS Cell Broadcast or high bitrate FACH transmission.

A comment will be added noting that the table presented so far is for FDD. TDD will be addressed later. A revised version will be produced by Motorola as tdoc 663 for incorporation to TS 25.302.

7.3.2 Tdoc 625 / On the simultaneous use of physical channels in the uplink (25.302) (source Philips)

Proposes to add into 25.302 the requirement to simultaneously use DCH and RACH, DCH and FAUSCH, as well as DCH and CPCH (this was clarified in the discussion, since the original formulation in the contribution was too general and therefore a bit misleading) since any way of changing the DCH bit rate to accommodate additional new data streams would involve in general S-RNC and C-RNC, which is known as being time-consuming. Hence, forbidding the simultaneous use means excluding fast access to resources when a DCH is already allocated.~~Proposes to add into 25.302 the requirement to simultaneously use DCH, RACH, FAUSCH and CPCH.~~

Discussion:

- It was argued by the chairman that DCH:s can support packet-type traffic on the uplink efficiently without reserving extra resources from the air interface at the time when no transmission takes place.
- It was also stated in the discussion that the reason for avoiding the simultaneous use of the above mentionned channels (with the result of multi-code transmission) was because of problems in case of soft handover. (According to the contribution, the reason for avoiding multi-code transmission is the fact that the power amplifier would become more expensive.) Due to this new reason for avoiding multi-code transmission, Philips agreed to postpone the issue.~~It was clarified by the chairman that DCH:s can support packet-type traffic on the uplink efficiently without reserving extra resources from the air interface at the time when no transmission takes place.~~

The document is noted.

7.3.3 Tdoc 569 / Proposals for UE simultaneous physical channels combinations, related to DRAC procedure and DSCH transport channel (source Alcatel)

The document proposes that when the UE is using a DCH controlled by the DRAC procedure in uplink, it is at least required to listen to simultaneously a DCH and an FACH transport channel in downlink. The FACH carries a system information message on CCCH, whose update pattern is communicated to the UE. When the UE is in soft handover, it has to listen to a FACH in each cell of its Active Set.

Discussion:
- It was clarified that at one point in time only one FACH needs to be read. The parameter is broadcast on a regular basis and the UE needs to be able to read it prior to using the uplink resource.
- Motorola commented that DSCH should not be linked to DRAC at this point, even though the physical layer capability may be very similar for the two.
- It is unclear at this point how to schedule the DRAC in a clever way, but that can be left to implementation.

The proposals given in the document are considered as additions to Tdoc 627 from Motorola.

7.4 Radio Frame transmission

7.5 Other

7.5.1 Tdoc 564 / Proposal for changes in 25.302 according to new PCH structure (source Ericsson)

A new paging channel structure for the FDD mode has been adopted in WG1. In the new structure the physical layer page info is split into two parts, page indicator and page message, which are mapped onto two different physical channels. The message part is carried by the PCH transport channel, which is multiplexed with FACH onto one secondary CPCCH physical channel. The page indicators are carried by a newly defined physical channel called the Page Indicator Channel (PICH). The contribution proposes changes to align TS 25.302 with the current model in WG1.

Discussion:
- It was clarified that whether PCH or FACH is used can be seen from the PICH. If the FACH is used, the PICH need not be read. PICH is presently included in L1 descriptions and is structured like an AICH.

The proposed changes are agreed. A note stating FDD only is to be added.

7.5.2 Tdoc 565 / FACH multiplexing onto Secondary CCPCH: Proposal for changes in 25.302 (source Ericsson)

A change providing the possibility to multiplex several FACH:s onto the same Secondary CCPCH is described. By doing this it is claimed to be possible to provide MAC-c scheduling based on logical channel priority rather than MAC-SDU sizes.

Discussion:
- The purpose of FACH multiplexing was clarified to be to incorporate the ability to have several FACH block sizes scheduled according to priorities.
- The proposal was clarified to extend FACH to be similar to DCH:s in the sense that multiple DCH:s with different transport block sizes can also be mapped to the same transmission time interval. Similarily there can be N FACH:s on a TFCI.
- It was asked if this is possible, because the block sizes would need to be supported by all RNC:s. Ericsson replied that it is still possible to configure all RNC:s similarily, but noted also that common channels can be reconfigured, which is then a slower process.

There were no objections and the proposal was accepted.

7.5.3 Tdoc 567 / Transport block sizes (source Ericsson)

This contribution discusses what restrictions are needed on transport block sizes in the specifications. Maximum and minimum values are proposed to be included in the table in ANNEX A of TS25.302.

Discussion:

- Motorola commented on the suggested maximum transport block size that the figure of 5114 is given as the maximum turbo coder block size. However, L1 includes a segmentation function to cope with larger blocks. Ericsson acknowledged this, but noted that some finite value had to be found. A liaison to WG1 would be needed noting that they probably don't need this segmentation function. From efficiency point of view it was seen to be inefficient if L1 does segmentation on the data. For convolutional coding the maximum coding block size is considerably smaller than for turbo coding. Distinction of the different coding methods may then be necessary to not force segmentation on L1. GBT noted that the figures in the multiplexing document do not show the segmentation, which was agreed.
- In addition to the original proposal a mention on the granularity was also added to the transport block sizes. **Granularity of 1 bit was added.**
- The **upper limit was decreased to 5000 bits** to allow for different sizes of CRC:s etc.

A note will say that the values have been selected to avoid segmentation on the physical layer. Also the question of the transport block maximum size should be added.

The indicated points from the contribution were approved.

7.5.4 Tdoc 571 / Change request to TS 25.302 related to TFI usage for DSCH (source Alcatel)

This document proposes a change to TS 25.302, in order to precise the usage of the TFI field when the DSCH is used. It is based on the description of DSCH written in TS 25.301 (section 5.6.4).

Discussion:

- Nokia noted that every DCH and DSCH has its own TFI, so the given text proposal is not understandable as such. The text proposal in the document was changed to read: "When the DSCH is associated with a DCH, the TFI of the DSCH also indicates the physical channel (i.e. the channelization code) of the DSCH that has to be listened by the UE."

The sentence will be added to the description of TFI in 25.302.

7.5.5 Tdoc 610 / Examples of Transport Format Attributes (source Nokia)

In response to discussions in the previous meeting and on the reflector, the contribution gives a set of examples for defining transport format attributes for a number of different example services.

Discussion:

- The methods to incorporate the signalling link were discussed. It was the common understanding that what is described in the contribution is only one example of the ways that the signalling link could be realised. It is not clear whether the standard actually needs to define the transport format attributes to different services or if it can be left to network operators to select how they want to provide different services in their networks.

7/8 removed from 25.302 as proposed. The AMR example table is taken into a 25.302 annex. Additional text will declare that the different classes correspond to different transport channels. Other examples in the contribution need not be defined at this point.

7.5.6 Tdoc 651 / Clarification on rate matching (source Nortel Networks)

The contribution proposes to delete "static" from the "resulting ratio after static rate matching" attribute of the transport channel.

Discussion:

- A question for clarification was asked on the "resulting ratio after rate matching". Nortel clarified that it is the ratio between the number of bits in the transport block set compared to the number of resulting bits after repetition / puncturing.
- Motorola noted that when a transport format set or a channel is configured for the uplink there'd be potentially a need for a rather large transport format to be signalled. It was replied that there need not be a large amount of information, the rate matching ratio would be enough.
- Nortel Networks (the chairman) explained that there can be only one predefined level of rate matching, which is why the "static" part was proposed to be removed. Having other types of rate matching on L1 was seen to conflict with closed-loop power control because the target would not be known.
- LGIC commented that uplink and downlink should be looked at separately, because the ordering of rate matching and interleaving is different. That was clarified to be the origin of the word "static" in the original text.
- Ericsson commented that the proposed change (remove "static") is ok as such, but the implications to L1 should be properly understood.

The subject was not concluded with this contribution, new material is to be submitted by Nortel as Tdoc 555.

7.5.7 Tdoc 555 / Addition of rate matching section in 25.302 (source Nortel Networks)

The document tries to clarify a few points on rate matching (static and dynamic) and to incorporate those control aspects into 25.302 for review by RAN WG1.

The proposed change is incorporated, dynamic rate matching on downlink will be flagged to RAN WG1 and comments are invited on that topic.

7.5.8 Tdoc 642 / Support of multi-rate vocoders e.g. AMR with Unequal Error Protection (UEP) (source Nortel Networks)

An example of the transport format combination model to support AMR is proposed to be incorporated into 25.302.

Nortel added the clarification that WG3 has started to define RAB sub-flows for AMR, which is the way that SA4 will work on. In addition to what has existed so far, there's only one RAB which has several QoS in different sub-flows.

Discussion:

- In response to a question from Ericsson, Nortel clarified that the number of transport channels would include a separate transport channel for each class and each mode. Nortel claimed that for any mode change the outer loop power control would need to follow, which is why the mode cannot be changed every 20 ms. Nortel also claimed that changing the UE mode without signalling to the BTS would result in problems with closed-loop power control. Ericsson clarified that the

received signal strength is measured from the DPCCH, which does not change rate. Further, the adaptation to offsets on the DPDCH is done by the transmitter.
- The assumption from Ericsson is to have 3 transport channels to cover all the modes. The needed rate matching values on the transport channel level are the same for all the modes. Motorola and Nokia supported Ericsson's comments on the subject.

The subject is not concluded now, new material will be submitted by Nortel.

7.5.9 Tdoc 632 / Changes to TS 25.302 (source: Siemens AG)

This paper contains some change proposals to align the content with the decisions that are already reflected in other documents.

Discussion:
- Ericsson asked a question on the USCH support, is there a known association on L1? The chairman also expressed concern that changing that association would not change anything on the physical layer. The bullet saying "always associated with another channel (DCH or FACH)" was not approved at this time, further example to indicate why an association on L1 would be needed is to be provided by Siemens.

The first text modification proposal in the contribution was approved.

7.5.10 Tdoc 633 / Introduction of Timing Advance for TDD (source Siemens AG)

In the document the timing advance mechanism in TDD is discussed, and a change proposal for inclusion of timing advance in TS25.301 and TS 25.302 is given.

Discussion:
- Vodafone asked if the harmonized chiprate is used in the calculations. As the guard period is given in chips, it would change. Siemens clarified that the calculations are based directly on the present specs.
- Ericsson noted that the split between layers is not described on very detailed level. Siemens explained that more details would be added later.

As the mechanism itself is FFS, it is difficult to act now, as 25.301 needs a change request and a change request adding an FFS cannot be done. A CR with a concrete proposal should be brought in so it can be put forward. At the moment there is no hurry to insert an FFS, the timing advance is in as long as it can be described by the end of the year.

The document is noted, a more detailed proposal on the exact functions will be provided by Siemens.

7.5.11 Tdoc 661 / CR to 25.302 (source LGIC)

The contribution proposes a clarification in the definition of the CCTrCH and to add a new term, CTrCH. Also the addition of TFCI for FACH and a model for the DSCH are proposed.

Discussion:
GBT asked if the CTrCH is something requested by L1 or something introduced by us for our own needs. LGIC clarified that they are not aware of the usage of this terminology on the physical layer, thus it is not physical layer initiated.
Ericsson asked what would be the added value to the previous modelling? LGIC said that the term is added just for clarification, because there should be a notation for the output streams after the coding.

Conclusions: TFCI for FACH is added. A model for DSCH (page 4) is agreed to be included with the change that the two different cases for TFCI usage are included. CTrCH is left out for now until a use for the term is presented.

8. Proposed changes on 25.301

8.1 Tdoc 598 / CPCH Access Procedures (source Golden Bridge Technologies)

The contribution presents a system-wide view of the operation of CPCH. GBT proposes to include this document as an informative Annex to TS document 25.301 (Radio Interface Protocol Architecture)

This update to the proposed Annex contains new information including:
- CPCH Physical layer terminology consistent with discussions in WG1
- Modified list of CPCH parameters as currently proposed for TS25.331
- New list of CPCH measurements as currently proposed for TS25.331
- Better definition of MAC/PHY boundary for CPCH procedures
- Updated CPCH flowcharts
- Addition of new CPCH emergency stop control mechanism.

Discussion:
- The chairman commented that the contribution includes several different topics and is much too detailed for 25.301. It was noted that this kind of comprehensive overview is not normally included in the specs, but the tdoc on the topic can be referred to where needed.
- Nokia asked about the relation of the parameters broadcasted on BCCH and the ones assigned in RAB setup. GBT clarified that the part which is assigned to the UE would need to be updated with each cell change. The BCCH parameters should also be read.
- Stopping transmission on the CPCH is shown to be based on power control messages and would take time in the order of half-a-frame.

The document was checked in view of which parts should be contributed to which documents. Impacts were found to 25.303 (transmission timing), 25.321 (most of the procedure descriptions), 25.302 (measurements), 25.331 (BCCH parameters, RAB parameters).

8.2 Tdoc 602 / CR to TS25.301: Modification of RNTI definitions (source Nokia)

This contribution (together with [1]) proposes to separate the identifiers used in Iur interface (between SRNC and DRNC) and in Uu interface (between CRNC and UE).

Discussion:
- The title of the section was changed to “UE identification on the radio interface”. The word “always” removed from the identification. Abbreviations aligned to be “S-RNTI” and “C-RNTI”.
- Ericsson questioned the need to separate S-RNTI and SRNC Identity for the radio interface. The architecture group needs them separately, but for WG2 one common identifier should be enough. No changes to permanent documents on this topic were concluded to be done at this point.

With indicated modifications the proposed changes were approved.

8.3 Tdoc 614 / CR to TS 25.301 - Integrity control mechanism (source Nokia)

This paper discusses the protocol layer for the integrity protection mechanism and proposes required changes to TS25.301 related to introduction of this function. A proposal for a LS to SA WG3 to correct some points in the S3 specifications is also included.

Discussion:

- It was discussed whether the power ramp on L1 necessitates the implementation of COUNT as a separate counter in RRC layer. The chairman commented that the justification for that is a modeling question as the whole RACH procedure could equally well be modelled within MAC.

The function is agreed to be added to RRC. The referred liaison was concluded to have further study on how the use of the COUNT value would be specified.

8.4 Tdoc 578 / Header compression in L3CE (source NTT DoCoMo)

The contribution shows the changes on the protocols in case the header compression in L3CE is used. The purpose of this paper is to initiate a discussion about L3CE. The changes to the protocol stack have not been done yet, the document was presented for discussion.

Discussion:
- The understanding of the meeting was that the compression was only for the header part of a packet. The editor of 03.60 had also asked the same question.
- Motorola asked if this is agreed in SA2, it was replied that it has been endorsed by SA plenary.
- A change request to introduce L3CE into 25.301 should be done first, the protocol was seen to be used optionally, so it is an optional protocol.

The change request will be prepared by Bosch and sent on the reflector first with Bosch as source.

8.5 Tdoc 603 / CR to TS 25.301 : Logical channel for Cell/URA update (source Nokia)

The notes agreed to be removed as proposed. The proposed changes in RAN termination points were not approved, so that sentence was reverted back to original: "For RACH/FACH carrying CCCH, MAC, RLC and RRC are terminated in the RNC."

9. Proposed changes on 25.303

9.1 Tdoc 584 / Mechanisms to transfer and update system information (source Ericsson)

The contribution proposes that a description of system information receiving is added to 25.303 [1]. Two companion contributions on system information, ref [2] and [3], propose changes to the output documents 25.304 and 25.331. The contribution proposes to send master and system information blocks as separate RRC messages.

Discussion:
- Nokia asked about the benefit of the proposal in comparison to having a few more system information types. One justification is that as the blocks are of different sizes and there is a segmentation mechanism in the RLC, it could be used for this purpose also. Another one is that there is no need to specify the time when this information block is to be sent.
- The improvements over the GSM system should be clarified, because the GSM say was seen to be fairly compact from GSM point-of-view. The expandability of GSM was not seen to be very good, because to add a new field probably a new message needs to be added, as the GSM structure is currently quite occupied.
- Nokia commented that the amount of data going to the primary CCPCH should also be paid attention to, as providing the maximum flexibility also will tie up resources. The BCH should have as low data rates as possible.
- The assumption was that the BCCH bitrate is quite high, such as 16 kbits / second.

- NTT DoCoMo asked for clarification on reading the SFN. The answer was that when writing the contribution the assumption was that the SFN is only read once, after which it is updated in the UE.

Discussion is concluded after looking at 621.

The following overstriked text is proposed to be deleted:

"5.5.1.4.7 Transfer and update of system information (PCH)

The UE shall read the BCCH mapped on BCH to acquire valid system information. For each acquisition, the UE may request different combinations of system information blocks broadcast on BCCH. Thus, the scheduling of the broadcast channel is done in such way that the UE knows exactly when the requested information can be found. ~~A master information block is used to specify what system information blocks are in use in a cell, and how they are scheduled. The master information block is also broadcast on the BCCH.~~"

9.2 Tdoc 621 / Scheduling of system information on the BCH (source Nortel Networks)

The contribution proposes a tree of System Information Packets (SIP) containing a number of System Information Blocks (SIB).

Discussion:
- Ericsson was concerned that parameters related to cell reselection were proposed to be included into the master SIP. This may make the master SIP too large. Nortel replied that the size was not very large, but it was pointed out that for having information on several neighbours the amount of information is going to be more.
- The explanation on classification of system information into SIP types is removed, the header will remain.
- It was clarified that to align the two proposals the system information blocks would be SIP:s as described by Nortel. The SIB:s on the other hand are aligned with transport blocks and are of fixed size.

9.3 Tdoc 599 / CPCH-related Issues and Concerns (source Golden Bridge Technologies)

Presents several proposals both for discussion and incorporation into documents.

Discussion:
- The addition of idle-AICH is proposed to have better possibilities to indicate busy status on different channels. The chairman noted that idle-AICH could be used to deny access to channels, but it was clarified by GBT that the persistence value is a much stronger mechanism to do this.
- AICH maps to a signature which maps to an individual channel. One channelization code could serve up to 16 different channels in a set. The idle-AICH would not be required to be observed by UE:s 100% of the time.
- The same signature set was clarified to be used by AP-AICH and idle-AICH, providing a sufficient number of signatures. All three different AICH:s (CD-AICH in addition) have different scrambling codes.
- Some unsolved things should be revisited after consulting Ericsson.
- Ericsson commented that they currently don't see the need for a CPCH / DSCH combination and proposed that it would not be brought in at this time.

Detection of out-of-sync in the downlink DPCCH is proposed to be used to stop transmission in the uplink. One estimate was that this detection would take 3-5 ms. For the specification the requirement should be looked at, e.g. 10 ms. WG1 should be consulted to see how long it would take to detect. The principle is agreed.

9.4 Tdoc 600 / Firm Handover over CPCH (source Golden Bridge Technologies)

An update of Tdoc 448 from the Berlin meeting.

9.5 Tdoc 612 / CR to 25.303: DSCH transmission with one TFCI codeword (source Nokia)

A proposal for including the possibility to use DSCH without implying to TFCI-codewords on L1 is presented.

An arrow from MAC-sh to MAC-d should be added to indicate that the TFI is chosen by MAC-sh. The editor's note should be modified as discussed.

The modifications will be incorporated by the editor and a CR will be produced.

9.6 Tdoc 620 / Further discussion on the asymmetric channel reconfiguration procedure (source Nortel Networks)

This paper first presents answers to the questions raised by WG3. It also gives justification for the asymmetric channel reconfiguration procedure from the radio protocol perspective.

Discussion:

- It was asked what the benefits for link adaptation are in the proposal? It was explained by Nortel that for link adaptation there may be a need to change TTI frequently, so the argued speed of the method is the basis for claiming benefits for link adaptation.
- Nokia asked if these answers have been submitted to WG3, who originally asked them. This has not been done so far. Nokia indicated that it would be good to know the response to these answers before deciding on the contribution.
- Ericsson asked if there would always be a gap in the transmission when the uplink is first switched. The explanation is that either the NW has to do double decoding or be prepared to lose a few frames.
- Philips noted that in the previous meeting they had asked the question on the advantage in delay compared to the other procedures, which had not been answered so far. Nortel argued that in the asynchronous case the possible loss of data could be hundreds of ms. In the proposed procedure the possible loss of data was claimed to be some tens of ms.
- NTT DoCoMo commented that as the physical channel can be reconfigured with the message, it is possible that the power control will be interrupted, which may cause the channel to lose synch. It was also questioned whether there exists a possible need to revert back in the error case for both link directions. An improvement would be to have an acknowledgement from NW L1.
- Philips expressed support for the procedure as no additional complexity was seen on the Iur / Iub.

A reply to the liaison from WG3 was sent (draft 672 -> approved 674). After receiving a reply, it was decided that other changes from tdoc 620 could be agreed, the FFS-notes remain until a reply from WG3 is received and the procedure can be agreed.

9.7 Tdoc 626 / The RRC messages relevant to control only substate (source Samsung)

This contribution shows a detailed description for RRC messages related to control only substate.

Discussion:

- Motorola asked for clarification on the DPCCH gating technique. It was clarified to be discontinuous transmission over DPCCH. Power control would be half-rated at the 1/2 gating rate. In case of control signalling the DPCCH gating is stopped. In WG1 the discussion on DPCCH ~~gating was discontinued~~is still ongoing. When the gating stops ~~there is no~~ it is necessary synchronization between the UE and the UTRAN. DPCCH Gating start and stop uses synchronised mode. That is, RRC message has an activation time for the DPCCH gating. In the gated mode, L1 synchronization is maintained between UE and UTRAN. Because UE and UTRAN transmit TFCI, TPC and Pilot symbol with reduced rate.
- Motorola asked if DPDCH can be used in gated mode. ~~The answer was no~~ Yes, if there is a signaling message to send, this signaling message should be sent on the DPDCH. To send such a signaling message in gated mode, DPCCH gating is stopped and transmits all TFCI, Pilot symbol and TPC. When this signaling message transmission is done, UE and UTRAN resume DPCCH gating. The reason why all TFCI, Pilot symbole and TPC are transmitted during the signaling transmission in the gated mode is to assist demodulation process at the receiver.
- GBT asked how many DPCCH would be simultaneously in the gated mode. It was clarified that the control for this was explained in another contribution. GBT noted that the codes would need to be set aside anyway for this usage.
- Ericsson asked what the proposal is. Samsung replied that the intention was to clarify the rest of the states in 25.303.
- Ericsson asked if what was shown here was proposed to be the only procedures that can make the UE exit the control only substate. E.g. the measurement report message can also be a cause for exiting. It was concluded that the list is not exhaustive.

The document was noted. A new description will be provided to request changes to permanent documents.

9.8 Tdoc 667 / CR to 25.303: Cell / URA update procedures (revised Tdoc 604) (source Nokia)

The document proposes changes to conclude on the topics of Cell and URA update procedures along the lines suggested by WG3.

Changes were made to the document to hide SRNC relocation and just refer to the question on whether the URA UPDATE CONFIRM is ciphered or not. References to CELL UPDATE REJECT were removed, because this response doesn't exist in 25.331 at the moment.

With the indicated changes incorporated into both text and the figures the document was approved.

10. Proposed changes on 25.321

10.1 Tdoc 563 / Proposal for changes in 25.321 according to new PCH structure (source Ericsson)

The changed paging scheme within the physical layer requires some changes in MAC. This contribution proposes to remove MAC-p from the model.

Discussion:

- It was unclear whether the proposed changes were applicable to TDD as well. Ericsson explained that the modification was triggered by FDD but no reasons were seen to make the change FDD-specific.
- Siemens claimed that there would be impacts to TDD L1, so they requested to keep MAC-p for TDD. Ericsson replied that the functionality towards the physical layer would still be the same, as the change is totally transparent to the physical layer.

The proposed changes were approved. If an issue with TDD is found, the change is revisited.

10.2 Tdoc 566 / FACH multiplexing onto Secondary CCPCH: Proposal for changes in 25.321 (source Ericsson)

Discussion:

- Siemens commented that in the introduction it was declared that the changes only apply to FDD. This should be transferred to the proposed changes.

With the above addition, the proposed changes were approved.

10.3 Tdoc 568 / MAC Primitives (source Ericsson)

The document proposes enhancements and clarifications to MAC primitives.

Discussion:

- For the interface between MAC and RLC, TFI should be changed to the number of RLC-PDU:s, otherwise RLC needs to be informed about TFI significance.
- It was asked which primitives would replace the MAC-Error primitives. The explanation was that the error primitives are removed because no use has been found for them.

The proposed changes were approved with the modification indicated above (TFI -> RLC-PDU for the MAC-RLC interface).

10.4 Tdoc 624 / MAC Assisted Dynamic Radio Access Bearer Control (source LGIC)

This document describes the MAC assisted dynamic bearer control procedure. Dynamic bearer control is performed in RRC, based on the traffic volume measurement reported by MAC. Traffic volume information is gathered and measured in MAC layer and the result is reported from MAC layer to RRC layer.

Discussion:

- It was clarified that the buffer amount is given from RLC to MAC for reporting the traffic volume.
- Ericsson asked if the status of all buffers in the UE need to be known, or would it be enough just to know the total? The separation of buffers to MAC and RLC is implementation-dependent and should not be seen on the air interface. Proposed to use the average value as well as the variance.
- Ericsson clarified that the RRC protocol has a method to trigger a report based on the sum of the buffers. In the report there is the buffer status separately for each RAB.
- GBT presented an issue regarding the counting of data in the buffers. It was concluded that as long as only the outstanding RLC-PDU:s are the only data that are counted, there is no ambiguity.
- It was discussed whether the data should be counted as being all the data in the buffers or as **the data that is currently queued for transmission (or retransmission)**. The conclusion was that only the latter one **needs to be reported**.
- CSELT noted that the previous parameter discussions should be taken into account to modify the part proposed for RRM strategies.
- Ericsson asked why the reports would be triggered based on CCTrCH:s instead of DCH:s? The triggering should be done on transport channel level to be able to properly support also bearers with more strict delay requirements. It was clarified that triggering should be on the RAB level.
- At the moment the model is that the report is always given to RRC, but this doesn't restrict implementation.

The proposal is to accept that the total size of the RLC-PDU transmission queue for each RAB is reported as mandatory, average and variance are changed to be optional. Measurements are done by

RRC based on reports from RLC+MAC. Triggering based on transport channels. The low threshold is incorporated as optional to be explicitly asked by RRC.

10.5 Tdoc 631 / Investigation of TS 25.321 V3.0.0 Annex B (source Siemens AG)

TS25.321 V3.0.0, has informative annex B that describes control of CPCH. It was introduced based on TSGR#4(99)480 by GBT which refers to the previous version of TS25.321, TS RAN S2.21 V0.1.0. On the other hand the annex part of TS25.321 V2.0.1 was reviewed and redundant parts have been removed. As a result annex B is not in line with other parts in the current version. Therefore this contribution reviewed them and proposes related changes to keep consistency of TS25.321.

B.1 was found redundant and agreed to be removed.

B.2 was proposed by the chairman to be kept at this point.

B.3 agreed to be removed.

B.4 agreed to be removed.

B.5 text moved to the end of the proposed bullet point.

10.6 Tdoc 634 / Control of available PRACH and AICH access slots (source Nokia)

Discussion:

- It was questioned if the access slots could be divided by a granularity of one.
- Sony will have a paper for the next WG1 meeting about a RACH access class partitioning scheme using signatures.
- Do we want to limit the uplink capacity below the maximum defined by the standard? Yes, signatures should also be included. A way to divide the sub-RACH capacity is needed to be able to separate into access classes.
- A figure in 25.303 should explain the interaction between WG1 and WG2.
- The broadcast parameters will be defined in this group. Subchannels done in this group. The power ramp-up is processed in WG1 until the preamble is detected in the BTS. After that the control should be in WG2 for the backoff etc.
- It was confirmed that the access class selection is done in the MAC for uplink access on the random access channel. Indicated to L1 with the data request primitive. For this a parameter in the data request primitive is needed.

10.7 Tdoc 634 / MAC Peer to Peer Signalling in TDD (source Siemens AG)

This paper precises the ideas developed in Tdoc 302/99 “MAC Peer to Peer Signalling in the UTRA and Application for Hybrid ARQ” and describes the MAC peer to peer signalling that is required to support the method of operation proposed in 3GPP RAN WG2 Tdoc 135/99 “Adoption of the USCH and DSCH Channels for UMTS-TDD for the UTRA TDD DSCH and USCH channels”. MAC peer to peer signalling is confined to communication between a MAC-sh function in the UTRAN and a MAC-sh function in the UE. This signalling is transported over the radio interface between the UTRAN and UE MAC-c instances using the RACH and FACH transport channels. The proposed signalling scheme allows the support of fast DCA by the MAC as stated in TS 25.301

Discussion:

- IDC asked if the D/S field is to be mutually exclusive with the C/T field, or are they used as combined. Siemens declared that the intention is to only have the D/S field for the MAC peer-to-peer signalling. It was also declared that RU:s can be combined into subsets.
- Siemens declared that the PDU is not yet defined, i.e. the choices are to do piggybacking of signalling with data or to have a separate TB. It was checked if the header is variable- or fixed-size, Siemens confirmed that the header size can vary. Mapping this to a fixed TB size would be done by padding the header.
- A resource allocation box should be added to the model to indicate the function.
- Only the changes proposed for the main part of 25.321 will be done now (one bullet + incorporation of D/S MUX and an allocation function, marking the changes as TDD only). The rest of the document will be used as input to an email discussion on the topic, in the next meeting also the procedures will be used as input.

EMAIL DISCUSSION: MAC peer-to-peer signalling (rapporteur Siemens)

10.8 Tdoc 635 / Structured RACH procedure (source Siemens AG)

To overcome the situation of having different requirements on the payload and the capacity of the RACH it is proposed to base the further work in RAN WG2 on the presented approach using two thresholds to divide the information in the first RACH burst and subsequent transmissions on the USCH.

Discussion:
- Nokia asked if this would require two RRC messages, when the message needs to be cut from some position in any case. Siemens didn't find it necessary to have two RRC-PDU:s.
- IDC pointed out that to assemble the message a unique identity would be needed.
- IDC asked where segmentation and reassembly would be done in this proposal. Siemens replied that it would be RLC. In that case two RRC messages are needed, because the segmentation on RLC will not forward an incomplete SDU.
- The chairman pointed out that fragmenting the message in the MAC could be a solution for TDD, where the first message could contain just the identifier and the first response would be an allocation from the USCH, containing the rest of the message. This way the difference could be hidden from the RRC.
- Ericsson made a counterproposal that hiding the operation on MAC is not concluded upon at this time, because the discussion on the FDD RACH burst size may be reopened. Ericsson also noted that one way would be to define two access procedures for the RRC protocol, which would be selected depending on the available RACH capacity by the UE RRC. After a discussion it was acknowledged that the Siemens proposal would be acceptable.

The TDD RACH will contain a MAC-Id and an RRC PDU, if the TDD RACH is not big enough, the rest of the message will be sent on USCH. This means that USCH would serve CCCH. That would make USCH mandatory for a TDD-terminal. It is not defined when the procedure will be used.

11. Proposed changes 25.304

11.1 Tdoc 545 / Separating RRC and MM specific parts of the MS classmark for Compatibility to the 2nd Generation System (source Fujitsu)

It is proposed to add a new description for the UE capability for RAN, splitting it clearly from the UE capabilities for CN in TS25.301. Also a liaison on the topic is proposed to be sent to CN 1 on our discussion.

Discussion:
- Nokia asked about the status of the classmark update procedure in WG3, has that been concluded upon? Is direct transfer necessary, or can classmark update Iu procedure be used?

- Nokia agrees to the split of the classmark to the RAN and CN parts, but there is some questions related to the transmission of the CN part, which still need to be solved.

A related liaison (Tdoc 666) was discussed together with the topic after the clarifications. The topic will be further discussed on the joint meeting planned for Aug 23rd.

11.2 Tdoc 585 / System information, changes to 25.304 (source Ericsson)

This contribution proposes changes to output document 25.304 related to the transfer and update of system information in idle mode.

With a change on the proposal changing the first sentence of the last paragraph of the proposal to read "…, the corresponding scheduling information is updated…" the proposed changes were agreed.

11.3 Tdoc 589 / Cell Selection and Cell Reselection Criteria (source Ericsson)

Discussion:

- NTT DoCoMo asked about the cell selection value and noted that as it is based on the old value, then the scheme will allow cell breathing, which was not seen to be preferable for cell planning. Ericsson replied that cell breathing has to be considered, but the current proposal doesn't include the basis for the values, thus one basis could be RSCP, where the interference would not be a problem. The chairman commented that as it is only the first selection, there should be no big impact to cell breathing. The chairman saw the problem to be related more to cell reselection than cell selection. Ericsson agreed on this.
- CSELT commented that tdoc 581 under 15.1 discuss the same topics, thus 581 was moved to this agenda point.
- Motorola asked on 5.2.2 (Immediate Cell Evaluation), if it is a procedure to be performed immediately prior to dedicated channel setup. Ericsson replied that for all messages to be sent on RACH such a procedure is applied. It was emphasized that this is for idle mode, thus the same text may not be fully applicable to connected mode.
- On immediate cell evaluation Ericsson stressed the concern that the access is not directed to the wrong cell. In connected mode the procedure may not be exactly the same. The chairman pointed out possible delay in having to read the whole BCCH. It was not clear how long that would take. CSELT agreed that this information is relevant because it is the only difference between 589 and 581 at the moment. The chairman clarified that for the proposal it would be good to indicate the purpose to be the selection of an acceptable cell. Finding the best one might be problematic.
- For the intra-frequency cell reselection criteria Sn was clarified not to require the reading of the neighbouring cell information. Nokia would prefer this offset information to be broadcast only for own cell and not on the neighbouring cell lists. The chairman noted that in GPRS the cell reselection information is even more than in this proposal, but that it should also be noted that all handovers in GPRS are based on cell reselection.
- Nokia asked what the range of the offsets can be and if the offsets are needed for all the neighbours or just the best ones. Ericsson has not considered the range yet.
- NTT DoCoMo asked regarding the quality value, if the quality value can be any one of the measurement values that are currently selected and it the applied quality value would be broadcasted to make it specific for the system? NTT DoCoMo noted that if the quality value is cell specific, it will lead to problems in cell.
- Motorola commented that in the description of the cell selection process in step 1 it is indicated that the UE creates a list of scrambling codes that are found. There's no threshold for finding a scrambling code, so there's no guarantee that the information from the BCCH can be decoded. Ericsson replied that this is possible, but then the S-value for the cell probably negative and it is not suitable for selection.

Conclusions written down jointly with Tdoc 581.

11.4 Tdoc 581 / Criteria for Cell Selection/Re-selection Algorithm (source CSELT)

Discussion:

- Ericsson noted that in the cell selection criteria UE speed is mentioned and asked if it has been considered how to standardize this. CSELT has not considered this.

A joint change proposal is to be prepared by the authors of the two contributions taking into account the comments given in this meeting. The high-level principles could be agreed in this meeting, so a proposal on that is to be approved on Friday. Further details will be discussed on the email reflector.

11.5 Tdoc 590 / Description of DRX (source Ericsson)

The contribution describes typical and possible uses of the Discontinuous Reception (DRX) concept. Text is proposed for the section on "Discontinuous Reception" in document 25.304.

Discussion:

- NTT DoCoMo asked the reason for the calculation method of the constant M parameter. Ericsson replied that what is presented is a way to simplify the calculation method for the UE.
- The formula (Cell SFN = (IMSI mod M) mod (DRX cycle length)) in the contribution was clarified by Ericsson to be just for the first monitoring of paging occasions, the complete version is :
- Cell SFN = (IMSI mod M) mod (DRX cycle length) + n * DRX cycle length, where n is increased after every monitoring of paging occasions.

The proposed change (text to 25.304) is agreed.

11.6 Tdoc 622 / Set of frequencies to be used for cell selection and re-selection (source Nortel Networks)

It is claimed that with this proposal, in most cases, where switch-on takes place in the home PLMN or after the first BCH information acquisition in a visited PLMN, a previously stored list is used, and cell selection can be fast. It is proposed to adopt these principles for cell selection frequency search in 25.304.

Discussion:

- CSELT pointed out that the terminal may not need to store the codes for all the frequencies, because the amount of information can be quite large. Perhaps only the codes used at the last access will be available.
- Motorola noted that what is stored in the memory of the phone can be left up to the manufacturer.
- It was brought up that the terminal is storing on the SIM-card information on the carrier frequency and the code for the network. That information will be used for switch-on and cell selection.
- If no information on the applicable frequencies is available then the full set of frequencies needs to be used.

The document is noted, discussion continues as Tdoc 644 is available.

11.7 Tdoc 644 / A flexible method for defining RF channels for UMTS (source Lucent Technologies)

This document describes a technique for defining the set of frequencies to be used by a terminal for searching for a network, and for handover messages. The proposal can be extended to include handover to other systems, including (but not restricted to) GSM.

Discussion:
- CSELT commented that the document contains a lot of information, which should be properly reviewed. Care should be exercised when looking at channel priorities, as there are issues outside the mandate of this group as well. When roaming, the selection of operators should not be based on the priorities. The chairman clarified that the search for PLMN:s is an MM task.
- Motorola commented that having extra information together with the frequencies is good, but then it should not be specified exactly how that information is used to speed up the search.
- Roaming impacts need to be studied, a clearer view should be provided for the update mechanism on the radio interface. The lists provided are seen as a method to speed up cell search. These lists may be ranked, but this is FFS.

12. Proposed changes on 25.921

12.1 Protocol methodology

12.1.1 Tdoc 615 / Comparison of message encoding methods for RRC (source Nokia)

This document compares how BASIC-PER UNALIGNED (Packed Encoding Rules) and CSN.1 (Concrete Syntax Notation One) produce transfer syntaxes for different kind of messages. Two RRC messages are used as an example.

The document was presented for information.

12.1.2 Tdoc 616 & Tdoc 669 / RRC message contents description (revised) (source Nokia)

This document attempts to clarify the current use of terminology in message contents descriptions. A solution on how formal methods should be used in this matter is also proposed. The ASN.1 example is available only in Tdoc 616. Otherwise tdoc 669 is an updated version of 616.

Discussion:
- Ericsson was concerned if ASN.1 could become a reason not to have the standard completed. Nokia replied that once an ASN.1 description is in place, new messages should be fairly rare. But a missing ASN.1 procedure that was added at the last minute would not prevent the completion of the standard.
- Philips asked if both the logical description and the message contents description would be a part of the standard. This was acknowledged to be true.
- GBT asked if this division would lead to the tabular format becoming out-of-sync. Nokia pointed out that the document states that change requests are to be done in tabular format.

ASN.1 shall be used by translation from tabular format.

The following sentences were striked out:
"The logical descriptions shall be present and up to date in all versions of the specification."
"…shall be done using email discussions or in physical meeting. WG2 shall approve the descriptions produced by the group. Up-to-date message contents descriptions shall be included in all versions of the standard documents which are sent to RAN for approval."

Otherwise the proposed changes on the technical report and the proposal to use ASN.1 were agreed.

12.2 Error handling and extension mechanisms

No contributions were proposed for this topic.

13. RLC protocol 25.322

13.1 Tdoc 549 / RLC Control Primitive Addition (source InterDigital Comm. Corp.)

The contribution proposes to add a CRLC-STATUS-Ind primitive and an associated event code (EVC) parameter to section 8.1 of the RLC Protocol Specification (25.322).

Tdoc 552 addressed the addition of a CRLC-ERROR-Ind primitive, so the two contributions were treated together.

Discussion:

- CSELT commented that according to the descriptive text this primitive would be used to report congestion, but according to the discussion on the day before the RLC buffer status is reported to MAC, which will then report to RRC. Concern was expressed whether this duplicated the measurement of congestion. "Peer-to-peer or local congestion" were agreed to be removed from the events indicated by the primitive.

Comparing the two primitives, the name CRLC-STATUS-Ind was found more general because also other events than unrecoverable errors could be indicated, so that name was chosen.

To reflect both the comments in the meeting, and the description in Tdoc 552 the examples in the EVC value were changed to read "(i.e unrecoverable errors such as data link layer loss or recoverable status events such as a reset, etc.)". With this modification the proposal was approved.

13.2 Tdoc 551 / RLC Error Handling (source Mitsubishi Electric, NTT DoCoMo)

In this paper possible RLC error situations and error handling procedures concerning these situations are studied.

Discussion:

- Motorola asked if the presented error cases are the only ones that would be supported. Mitsubishi declared that this was only an example.
- Nokia asked if PDU:s failing CRC checking would still be delivered from Node B. DoCoMo responded that all CRC-failures would be deleted at the base station.
- Ericsson wanted to check if a RESET would really be necessary in all the cases indicated.

A number of modifications were done to the document:

- For the explanation of inconsistent state variables (2.1) the action following the error cases (last sentence) was agreed to be deleted.
- Section 2.2 (Invalid PDU reception) was found problematic from extensibility point-of-view, because PDU:s with unknown fields are discarded. This description should be revisited and was not incorporated at this time.
- From 2.3 the definition that "Repeated failed retransmission over MaxDAT times is an unrecoverable error." was incorporated.
- In the conclusions section the first point was changed to read "RLC entity should use RESET procedure in case of an unrecoverable error,"

With these modifications, the remaining contents were agreed to be organized by the editor into chapter 10 to form an initial presentation of the error cases.

13.3 Tdoc 552 / RLC Error Primitive (source Mitsubishi Electric, NTT DoCoMo)

Treated together with Tdoc 549.

13.4 Tdoc 560 / Poll Procedure on DCH and RACH (source Ericsson)

This contribution proposes removal of the FFS in the sentence "it is FFS if the poll bit is set in all PDUs transmitted in the same transmission time interval" in chapter 11.6 of 25.322.

Discussion:
- Philips commented that the contribution assumes information on the transmission time interval to be exchanged on the interface between RLC and MAC, which is currently not incorporated in the model. It was discussed whether the proposal needs to be specified by the standard, but to ensure similar behaviour from all receiving RLC:s it was concluded that the behaviour would be good to be written in the standard. Philips made a proposal that an alternative not conflicting with the model would be to have RRC configure RLC to repeat the poll bit a number of times, but this was not found to be an acceptable solution.

The proposal could not be concluded now, so the document was noted. Further action was also unresolved.

13.5 Tdoc 561 / RLC STATUS PDU Refinement (source Ericsson)

The contribution proposes a refinement of the contents of the STATUS PDU format for sending status information in RLC acknowledged mode.

Discussion:
- LGIC asked on the compressed bitmap scheme how the recipient knows what compression algorithm is being used. Ericsson replied that as the compression scheme is standardised, it will be the same for both the transmitter and the receiver.

The proposed modifications were approved as follows:
- Type field changed to three bits as proposed.
- Ack type and LSN text changes accepted as proposed.
- The window size super-field addition and description accepted with the removal of the text explaining how suspend / resume functionality between peer entities could be provided.
- Proposed modifications to variable definitions accepted.

13.6 Tdoc 656 / STATUS PDU relative list format (source Nokia)

In this contribution a list format based on relative encoding of erroneous PDU:s is presented together with some example cases to compare performance with other SUFI types currently in the specification.

Discussion:
- CSELT pointed out that relative mechanisms are more prone to accumulative errors than those built on absolute addressing. This was acknowledged by Nokia with the notion that as each STATUS PDU includes an FSN-field, the errors accumulate only for one PDU and only in the case of undetected CRC error, so the event should be extremely rare.
- On the subject of incorporating the scheme Sony commented that they would prefer to keep the number of different STATUS encoding types small and thus rather replace than add a new type. Ericsson wants to have the LIST and BITMAP types in the specification as defined now, and prefers other schemes to be added later after a more thorough evaluation.

The agreement was reached that RLIST is incorporated now as the compressed bitmap scheme, future proposals can be brought in and compared. The best scheme by the time the release needs to be concluded upon is kept as the compressed bitmap scheme, which leaves room in the type field for one more future type to be added, should the need be found. Evaluation criteria, however, was not precisely discussed or concluded upon.

13.7 Tdoc 562 / Proposed changes to 25.322 "RLC specification" (source Ericsson)

This contribution proposes to move the toolbox functions from section 9.8 to section 11 in 25.322. The three toolbox functions, send STATUS PDU every X SDU, every X PU and when X% of receiving window has been reached, are proposed to be removed. Also the plausibility check function is proposed to be removed. SDU discard has been added as trigger for sending a STATUS PDU. In order to achieve a more network controlled retransmission protocol some of the toolbox functions that are always present are proposed to be network controlled. Further, a proposal of timers, parameters and state variables that are needed to support the toolbox is given.

Discussion:

- The last sentence in the proposal was viewed as making the whole toolbox mandatory. As this was not acceptable to all companies, the proposal to support all triggers, functions and actions was deleted and notes describing the UE support of all the functions as FFS were added.

The other parts of the proposal were concluded upon as follows:

- References to configuration of AMD / UMD / Tr PDU size setting by RRC were removed. Changes for Tr / Unack / Ack agreed with indicated modification
- 2.1.5 accepted.
- 2.1.5.1 accepted with the addition of an FFS for UE support.
- 2.1.5.2 accepted.
- 2.1.6 accepted
- 2.1.6.1 accepted with the addition of an FFS for UE support. NTT DoCoMo pointed out that for poll_prohibit there are cases, where polling is performed even when the timer is running. It was concluded that the exception cases should also be defined, so this was left for future contributions.
- 3 accepted.
- 4.1 accepted
- 5 accepted.
- 9.8 in 25.322 removed as proposed.

13.8 Tdoc 576 State variables/Timers/Parameters for RLC reset procedure (source NTT DoCoMo)

The paper proposes a state variable, a parameter, and a retransmission timer for the RLC reset procedure.

The proposal was accepted with the following modifications:

- To the description of VT(RST) the following sentence was added: VT(RST) is reset upon the reception of a RESET ACK PDU.
- In the description of MaxRST instead of saying that the connection will be released it is said that the higher layer (RRC) is notified.

13.9 Tdoc 577 / Proposal on removal of Quick Repeat (source NTT DoCoMo)

This paper proposes to remove Quick repeat from RLC functions.

The proposal was agreed. As the same function appears as FFS also in 25.301, a formal change request will be prepared by NTT DoCoMo

13.10 Tdoc 605 / Description of the H bit (source Nokia)

The contribution addresses the description of the H-flag and the extended header. A generic EHType field is proposed to provide future expandability of the header.

The proposal was accepted with the following modifications:
The original proposal says that setting the H-bit will indicate that the next two octets include an extended header. This should be changed to state that if H is set, the first two bits of the next octet contain the EHType field. This way the length of the extension can be defined by the EHType value. The precise structure of the PDU with the extended header should be still more explicitly described (header comes first and after that the PU:s follow).

13.11 Tdoc 636 / Flexible RLC PDU format (source Siemens AG)

Treated together with 677. Proposes to add an "X"-flag into the length indicator octet to indicate that the length indicator is extended to the next octet.

13.12 Tdoc 677 / Variable length of the LI field (source Ericsson)

Treated together with and 636. Proposes to add another type of Length-field for large PDU:s, occupying two octets and having 15 bits for the length indication.

Discussion:
- It was agreed that the PU size cannot be reconfigured during transmission while still maintaining the ability to retransmit across the change.
- Nokia commented that the Siemens proposal, which uses 6 bits per octet for the length indicator, would already with relatively small PDU:s add some overhead in the form of extra length indicator octets. The proposal from Ericsson occupies always two octets for large PDU:s, but manages with one octet up to the size of approximately 128 octets.

Conclusion on the topic was not reached.

13.13 Tdoc 611 / Change Proposal to 25.322: Description of the multiple payload units and header compression (source Nokia)

The contribution proposes an overall text explaining the motivation and configuration of the RLC header compression method. Also some replacements in the EPC counter description to replace PDU with PU are proposed.

The proposal was accepted with the following notes:
- The preferable AMD PDU size of 320 bits was further precised to be used to "illustrate the method".
- Explanations of the header compression in the Ack-mode description of the RLC-spec will be replaced by a reference to the section having the explanation to avoid duplication.

13.14 Tdoc 613 / Requirements on RLC reset procedure (source Nokia)

The paper presents some requirements for the RLC reset procedure and new descriptions for RESET, RESET ACK and the associated PDU formats. These requirements are especially needed in connection with the SRNS relocation where it has to be ensured that the correct value of HFN is maintained at both peer entities and no data is lost.

Discussion:
- It was commented that the motivation for this type of reset procedure is not cleared in sufficient detail, so more material should be provided to motivate the change from the SRNC relocation point-of-view.

The document was noted.

13.15 Tdoc 629 / Descriptive SDL for Acknowledged mode RLC (source Nokia, NTT DoCoMo)

The contribution presents updated SDL-descriptions for TS 25.322. The SDL:s have been done according to descriptive SDL guidelines and changed to reflect changes in the protocol description.

Discussion:
- It was discussed whether duplication of the text with SDL is necessary. The chairman didn't want to decide upon the inclusion of SDL:s into the specification in the subgroup, as this was not a proposal in any of the contributions and had not been indicated to the main session before. Therefore only the proposal to replace the current SDL:s in the document with the updated one was discussed.
- To clarify the relationship between the specification text and the SDL:s, a note stating that the "SDL:s are provided as informative" was discussed.
- Before inclusion of the update to the document, Ericsson & Motorola requested a possibility for more careful examination of the contribution. Thus, no changes were incorporated from this meeting, an email discussion on the SDL:s was triggered with Mr. Takuya Hamajima from NTT DoCoMo as rapporteur.

EMAIL DISCUSSION: RLC SDL:s Mr. Takuya Hamajima from NTT-DoCoMo will act as rapporteur

14. RRC protocol 25.331

Apart from the Tdoc-specific items, the following points were discussed:
- Text in 25.331 should be state-oriented and the same (sub)state names as used in 25.303 must be used.
- 25.303 will need to be split into two parts: states, which will be normative and signalling examples, which will be informative.

14.1 RRC connection management procedures

14.1.1 Tdoc 557 / Assignment of SSDT Parameters (source Telecom Modus)

Proposal: Add "SSDT info" to active set update
Description of "SSDT indicator"

Discussion: NTT DoCoMo asked how the temp id is used to indicate the best cell
Telecom Modus indicated that a better explanation is found in Tdoc 559 (agenda 15.1)
NTT DoCoMo asked whether the proposal has been presented in WG3.
General understanding was that this should be seen by WG3 only as a signalling parameter from RNC to NodeB.

Ericsson asked whether information elements "SSDT indicator" and "SSDT info" are both needed always in the message, since both are marked optional. If yes, they should be combined to one IE.
Telecom Modus: SSDT info per radio link, SSDT indicator common for all radio links.

Decision:	Approved after adding better description of the two IEs.

14.1.2 Tdoc 586 / Replaced by 678

14.1.3 Tdoc 678 / System information, changes to 25.331 (revised) (source Ericsson)

Proposal: **Proposes changes to 25.331 based on merging of TDoc584 (Ericsson) and TDoc621 (Nortel)**

Two ways to notify change in BCCH. Paging type 1 on PCCH or broadcasting Master information block on CCCH/FACH.

Discussion: Sending sys info on DCCH was concluded to be FFS (no applications found so far). The chairman asked on the use of paging type 1: Is it just a few bits in PCH that indicate this or a whole paging message which must be sent on all paging channels to all UEs? Ericsson replied that it is a seq number on all paging locations.

Ch: Is it permanently in Paging type 1 message? E: paging indicator bits used for this. Ch: paging cycle may be e.g. 10 seconds. Does utran need to repeat the message all this time as it can be quite complicated. E: A short sequence number will be sent (e.g. 2 or 4 bits, FFS)

The Chairman noted that you need to be sure that seq numbers don't circulate. E: This method is applied only for information that changes very seldom. Some sys info blocks (that change frequently) use expiration timers. The description is a bit misleading and needs to be corrected. Nokia asked if the same rules apply also for CCCH case ? DoCoMo clarified that it is possible to page Ues normally at the same time when sending BCCH modification info. Ericsson confirmed this, as BCCH modification info is an optional infoelement.

Decision:	Approved after rewording. It needs to be indicated in the text that this is not the only method to inform UE of change in system information parameters (another method is to use expiration timer for parameters that change frequently)

14.2 RRC connection mobility procedures

14.2.1 Tdoc 558 / Securing UL Signaling and Data during Relocation (source Telecom Modus)

Proposal: A mechanism is introduced so that the UTRAN can indicate to the RLC layer in the UE that the acknowledged mode (AM) should be used for UL signalling (and UL user data [ffs]) during the SRNC Relocation.

Discussion: It was questioned whether new RRC messages are really needed or if RAB reconfiguration could be used. Another way to realise this is to have RLC suspended for the period of SRNC relocation.

Decision: No conclusions, this is a subject for the joint meeting in August 23rd.

14.2.2 Tdoc 572 / Proposal of Physical CH information for RACH/FACH in the Cell Update Confirm message (source NTT DoCoMo)

Proposal: This contribution proposes to add physical CH information for RACH/FACH in the Cell Update Confirm message and to execute Cell Update always when UE is changed from DCH to RACH/FACH.

Discussion: Nokia proposed to add C-RNTI for one cell in the RAB release message to avoid Cell Update in DCH->RA/FACH transition. This was not yet agreed, since implications to cell selection algorithm should be studied. The main concern is that Cell Update needs to be done after every DCH release.

Decision: No decision yet. Contribution from Nokia expected latest to the next meeting.

14.2.3 Tdoc 591 / UE Measurement Concept for Intra-Frequency Measurements (source Ericsson)

Proposal: Some parts of the document has already been discussed during RRC email discussions

The parts that were not approved during email adhoc:
3.2.5. Reporting event 1E: A Primary CCPCH becomes better than an absolute threshold
3.2.6. Reporting event 1F**:** A Primary CCPCH becomes worse than an absolute threshold
3.3.4. Forbid a Primary CCPCH to affect the reporting range

Decision:	Agreed. Will be included in chapter 15.

14.2.4 Tdoc 592 / UE internal measurements (Ericsson)

Proposal: New UE reporting events that are connected to the UE transmission (Tx) power and the UE received (Rx) signal level. Proposes to include the UE Tx and Rx power measurements into a new UE measurement type, denoted “Internal measurements”

Discussion: Main question was whether these reports can be added to other measurement reports or do they always need to be separate Measurement Control messages.

Ericsson clarified that the intention is not to send actual transmit power information to network, just indication of the event.

Editorial: in "Proposed addition to chapter 15" it should read "UE internal measurements"

Decision:	Proposed changes to chapter 10 agreed after adding a sentence "UTRAN may order UE to append other types of measurements to the same measurement report messages" Proposed addition to chapter 15 agreed

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14.2.5 Tdoc 593 / Control of inter-frequency measurements (source Ericsson)

Proposal: Mechanisms for inter-frequency measurement control. Not all UEs that have inter-frequency neighbours measure these cells all the time. Instead UTRAN decides when

the inter-frequency measurement should start based on other UE and UTRAN measurements.

Discussion: Another way to set compressed mode on is to use Physical Channel Reconfiguration procedure, which may be necessary if new L1 parameters (e.g. spreading codes) are needed during compressed mode.

Decision: Issue still open. Main question is whether the information should be sent in Measurement Control message or in Physical Channel Reconfiguration message.

14.2.6 Tdoc 607 / RRC Control of Hierarchical URAs (source Nokia)

Proposal: Include URA assignment in CELL UPDATE CONFIRM and URA UPDATE CONFIRM messages in case when one cell belongs to several URAs.

Discussion: Also other mechanism possible (no URA id in the confirm messages, but UE selects the topmost from the URA list in BCCH. This kind of mechanism is defined in PDC standards).

However, this proposal adds flexibility to the URA design.

Decision:	Proposal agreed.

14.2.7 Tdoc 618 / UE Capability Enquiry (source Nokia)

Proposal: The UTRAN shall indicate in a SYSTEM INFORMATION message whether the UE is required to send complete radio related GSM capability information during RRC connection establishment phase. If not, then it shall be enough for the UE to to indicate its dual mode capability to the UTRAN in an RRC CONNECTION REQUEST message.

(This document is a resubmission of TDoc R2-99481)

Discussion: Editorial mistake: "System information broadcasting" message should read "UE Capability Information" message.

The chairman enquired whether it is feasible to limit the UE capability enquiry to dedicated channel active state as was presented in the contribution. After discussion, it was concluded that the message can be sent also in common channel state.

Decision:	Concept agreed, editorial changes needed

14.2.8 Tdoc 619 / Periodic Measurement Reports Triggered by Radio Link Addition and Replacement Failure (source Nokia)

Proposal: A recovery mechanisms for cell addition failure and cell replacement failure (triggering of periodical reporting by events 1A or 1C)

(This paper is resubmission of TDoc R2-99430)

Discussion: Editorial: "candicate cells" should be "monitored cells"

Decision:	Agreed.

14.3 Radio Access Bearer Control Procedures

14.3.1 R2-99570 / Change request to S25.331 to include a new procedure and the associated specific function for 'Dynamic Resource Allocation Control of Uplink DCH' (source Alcatel)

Proposal: A new procedure for uplink Dynamic Resource Allocation Control (DRAC). The document proposes also to include the associated specific function in section 15.

(This paper is a resubmission of TDoc R2-99387)

Discussion: Sentence "The UE RRC function shall be mandatory for all UEs supporting medium to high bit rate NRT services" to be removed.

Also sentences: "*…the UE is requested to listen to the CCCH system information of each cell…*" and "…the scheduling of the CCCH in neighbouring cells should be co-ordinated…" were not agreed as such.
Whether support for the DRAC function is dependent on UE capability or UE service capability is FFS.
Ericsson commented that the description should use same terms as the SYSTEM INFORMATION message parameters and actually the procedure description is not needed, since it only adds new parameters to the system information procedure.

Decision:	No new RRC procedure is needed since the System Information procedure already covers this and only some new parameters are needed (which are already included). Proposed section 15.1 agreed with modifications made in the meeting. Proposed text for section 8.3.5 edited in the meeting, resulting text included in chapter 15.

Alcatel noted that also 25.303 need to be updated, since DRAC control was already agreed as a separated procedure in 25.303

14.3.2 Tdoc 594 / Traffic Volume Measurements (source Ericsson)

Decision:	This has been already agreed in the email discussion.

14.4 RRC message parameters

Tdocs **553, 595, 596, 609, 628, 643, 644, 657** were decided to be discussed via email.

14.4.1 Tdoc 575 / SFN Measurement Indicator (source NTT DoCoMo)

Proposal: Proposes to remove the "Reference Time Difference to Cell" and add "SFN Measurement Indicator" to the intra frequency cell info

Discussion: Is SFN L1 or L3 information ? Nobody had clear view on this.

Decision:	Agreed, question about SFN to be added to the LS to WG1

14.4.2 Tdoc 606 / Minimum RACH payload size and impacts on RRC message parameters (source Nokia)

The document discusses the coverage impacts of a minimum RACH payload of 20 octets, which should be considered before concluding on the contents of RRC messages that are sent on CCCH/RACH.

It was agreed that the subject could not be concluded now, as RAN WG1 has not discussed the subject yet. The potential problem is now known, but the selection between different proposals to solve it is premature to make.

15. Technical reports

15.1 RRM strategies 25.922

15.1.1 Tdoc 601 / AMR mode adaptation in UTRAN (source Nokia)

It was commented by Ericsson that the outband signalling exists now, so inband signalling would need to be added as a new proposal.

The principle is adopted (Figure 1). The AMR change from TC to RNC is realised as inband. Principles are input into the RRM strategies document by the editor. Transport format for the transport channel carrying the different classes of AMR source codec provide an unambiguous mapping to the codec mode that was used.

15.2 Location services 25.923

15.3 Broadcast / multicast services 25.924

15.4 ODMA 25.925

16. Liaison and output to other groups

16.1 Tdoc 672 / Proposed Liaison to WG3 on asymmetric reconfiguration procedure (source Nortel Networks)

The liaison provides answers to the questions sent by RAN WG3.

It was agreed to be sent (tdoc 674).

16.2 Tdoc 683 / Report on Updates to 25.302 (source Editor)

An editor's note on the measurements was noted to say that "the applicability of all measurements to the TDD mode need to be reviewed."

Changes to the presented modifications:
9.1.1 changed:
Title: SFN - SFN observed time difference to cell
Precision requirement refined to be to [1] chip unit for handover and to a fraction of a chip for LCS.
9.1.2 added:
Title: CFN – SFN observed time difference to cell
9.1.3. is also "observed"

Nokia asked about the difference to RTD. It was clarified that RTD refers to the real time difference that only the network knows. OTD would qualify.

In the Data primitive "CFN" was changed to "FN(CELL)" as it refers to the cell frame number.

10.2.1 text in the parenthesis referring to DTX-mode was removed.

10.3.3 a note was added to say that not all parameters are valid for TDD.

10.3.3.5 A bullet added (Usage of FAUSCH (Yes/No)). Editor's note added saying: "The PRACH can also be used to map the FAUSCH Transport Channel."
10.3.3.6 & 10.3.3.7 DOFF changed to "Transmission time offset value"
10.3.3.10 AICH: Note modified: "The value for the parameters needs to be consistent with the corresponding PRACH. This needs to be confirmed by WG1."
10.3.3.8 PCPCH parameters should be updated from Tdoc 598, section 1.3.
10.3.3.12 (FAUSCH) removed as it is mapped to PRACH

Annex A: "1 bit granularity" added to TB and TBS, the first proposed note removed.
The other proposed note deleted and a note added saying: "The maximum size of the Transport Block has been chosen so as to avoid any need for segmentation in the physical layer into sub-blocs (segmentation should be avoided in the physical layer).
The maximum TBS size of 63840 bits was rounded up to be 200000 bits.

Tdoc 691 will contain a further update.

16.3 Tdoc 623 / Draft overview text of the FDD DS-CDMA radio interface to be inserted in ITU-R IMT.RSPC (source TSG RAN ITU Ad Hoc)

The document was presented for comments.

16.4 Tdoc 684 / Proposed liaison statement on TS 25.302, 'Services provided by the Physical Layer' (source Motorola)

For the measurements section it was added that even though all the measurements should be reviewed, ISCP and SIR were the ones where concerns in RAN2 were pointed out.

Modifications were also done to another section. A file will be provided by the chairman to Motorola.

16.5 Tdoc 685 / Proposed Response LS to TSG CN WG1 on CM-SERVICE-REQUEST for multicall (source Ericsson)

A sentence to the end was added saying: "In fact, it would not be seen by the RRC protocol."

The liaison was approved as tdoc 704.

16.6 Tdoc 686 / Draft LS to SA3 on Ciphering Algorithm Requirements (source Vodafone)

Addition: "Although the minimum AMD header size is 2 octets, a minimum PDU size of 320 bits may be enforced for the case of 2 Mbps resulting in a 64 PDU's per 10 ms TTI."

The chairman asked why the AMD and UMD maximum sizes were so small, which was clarified to be according to the current specification. A sentence clarifying that "For UM and AM also, ongoing studies could extend the maximum number of bits to 5000 bits."

With the indicated changes the liaison is agreed (tdoc 702).

16.7 Tdoc 687 / Proposed Liaison statement on chosen Logical and Transport Channel on the Radio Interface for Cell Broadcast Service in UMTS (source Mannesmann Mobilfunk)

Last sentence modified to: "TSG RAN2 believes that with this decision, there is no impact in RAN WG3 regarding Iub / Iur interfaces and WG1 regarding the radio interface."

16.8 Tdoc 690 / Proposed LS to RAN WG3 on inclusion of TFI transmission without data (source Nokia)

Approved with some changes indicating that there are currently two models that are worked on by RAN2, changes incorporated in tdoc 703.

16.9 Tdoc 692 / Draft LS to WG4 in response to 530 (source Ericsson)

The liaison statement was approved.

16.10 Tdoc 652 / Draft LS to WG1 and T2 on USCH requirement for TDD (source Ericsson)

Approved.

16.11 Tdoc 689 / LS to WG1 on USCH requirement for TDD (source Interdigital Communications Corp.)

Draft LS to WG1 and T2 on OSCH requirement for TDD.

Mandatoriness replaced by "part of the baseline implementation capabilities".

Approved as revised in tdoc 701.

16.12 Tdoc 691 / Updated 25.302 (source Nortel Networks)

The document is sent out on the reflector after the meeting. Comments must be sent by Monday night, after that the document is considered approved and mailed to WG1 as tdoc 700.

16.13 Tdoc 694 / Proposed LB on UE requirement to report OFF (source NTT DoCoMo)

Approved.

16.14 Tdoc 693 / Draft LS to WG1 on RACH payload sizes (source Ericsson)

To last sentence “for FDD” was added. A sentence saying “Note that it is also preferred for TDD.”

Approved.

16.15 Tdoc 695 / Draft reply to RAN3 on Separate delivery of Transport Blocks within a Transport Block Set by MAC-d to L1 (source Ericsson)

Approved.

17. Any other business

Samsung & LGIC volunteered to host the November meeting in Korea.

18. Closing of the meeting

The chairman thanked ETSI for hosting and closed the meeting.

19. Email discussion groups

Topic	**Rapporteur**
RRC message alignment	Motorola
RRC new elements	NTT DoCoMo
RLC SDL	NTT DoCoMo
MAC peer-to-peer	Siemens
RRM	CSELT
Location services	Nortel Networks
Broadcast / Multicast Services – email approval by 10th of August, chapt. 6 of tdoc 682	Mannesmann Mobilfunk
ODMA approval of the new contribution.	Vodafone

Emails concluded by the evening of Aug 11th .