TSG-RAN Working Group 3 meeting #2   *TSGW3#2(99)183*
March 15th – 19th, 1999
Kista (Stockholm), Sweden

Source: **Interim Secretary**

Title: **Draft Minutes of 3GPP TSG RAN WG3 meeting #1,
                   February 2 - 5, 1999, Bonn, Germany**

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1   OPENING OF THE MEETING

The convenor Per Willars opened the meeting at 9:20.

2   APPROVAL OF THE AGENDA, 1

TSGW3#1(99)001 is the proposed agenda, and Per Willars introduced it. He had allocated the Tdoc numbers to relevant agenda points. Items 5 and 6 were swapped. The agenda was approved as modified. This report is structured according to the approved meeting agenda. Note that the order in the agenda does not always correspond to the order in which the items were discussed.

3   APPOINTMENT OF INTERIM SECRETARY

Atte Länsisalmi of Nokia had volunteered to be the interim secretary for this meeting. In the absence of other volunteers he was selected.

4   LETTERS / REPORTS FROM OTHER GROUPS

TSGW3#1(99)078 'Liaison regarding Iub AAL2 protocol' was presented by Andrew De La Torre of Vodafone. This is from SMG6/TMN5 Ad-Hoc. It was clarified that the situation has been clarified since the letter was written, but the question relates to whether TCP/IP can be used as the transport for O&M.

It was clarified that in the current architecture Iub includes two logically separate interfaces (telecom and O&M), but they can be carried on the same transport. Also the O&M has two parts, and the HW dependent part can be transported independently.

It was agreed that an answer is to be drafted by Andrew (See **Tdoc 88** discussion on that in in section 2 of this report). It should basically state that currently we have not discussed this in particular, but nothing that has been discussed so far is in conflict with the requirement. The group is planning to study this item.

TSGW3#1(99)079 'Liaison statement to 3GPP TSG-RAN WG3 on the Importance of O&M and impact on UTRAN functionality' was presented by Andrew De La Torre of Vodafone. This is from SMG6/TMN5 AdHoc, and it is pointing out that RAN WG3 should start considering the O&M issues with high priority.

The division of the O&M work was discussed and to clarify the O&M work area in general Andrew explained that the proposed split of the O&M issues to two categories is the following:

- First category: O&M that affects traffic handling capability, needs to be standardised and somehow integrated to the RNC.

- Second category: Issues that are either so implementation dependent that they can not be standardised, or they do not affect traffic handling capability, do not need to be standardised.

It was clarified by Albert Yuhan from Omnipoint (the convenor of TSG SA WG5) that no clear work split proposal has been reached in the 3GPP Network Management WG in TSG SA (WG5). However in his view it is better if the UTRAN related issues to be handled by O&M are identified by the UTRAN experts in this group, but the O&M technology is developed by O&M experts in TSG SA WG5. Also he pointed out that if

the O&M work for each interface is carried out separately it will not result in consistent O&M network.

The convenor also agreed that the work split is not clear and needs to be further discussed.

Andrew clarified that the idea of the liaison statement is to ask the help of this group to identify the functions of the UTRAN so that the AdHoc can categorise them as explained above. He also proposed everyone to create their view on the work split.

The document is noted, and we can note that we are starting the work in this area.

TSGW3#1(99)087 'Iu Specifications, LS from SMG12' was presented by the convenor Per Willars. It was agreed that the division of Radio Network and Transport Network layers is already included in the documentation, and that the specification structure already reflects this division. The document is noted, and no answer to SMG12 is needed.

TSGW3#1(99)089 'Liaison Statement on UMTS developments' from SMG12 was presented by Per Willars. It points out that SMG12 is considering CN standards based on evolved MSC and SGSN, with optional Gs interface. This was only addressed as a copy to TSG RAN, so there is no need to answer this liaison. Also this is not in contradiction with our current assumptions. The document was noted.

TSGW3#1(99)095 'LS on the established of transport connections over the Iu' was presented by Nicolas Drevon of Alcatel.

Björn Ehrstedt from Ericsson commented that the q.AAL2 would be used as the ALCAP for the AAL2, and that will be available from ITU in time, as has already been discussed before. Nicolas pointed out that the working assumption on TC location has been removed in SMG12. It was discussed that the removal of the TC location working assumption is not the issue, but the fact that the transport in Iu may be dependent on the TC location. The convenor clarified that this does not mean that we would automatically remove any working assumptions we have for the Iu reference point.

It was agreed to return to this issue when the technical contributions to this meeting on this area have been addressed (After these discussions (**Tdoc 21** See section 8.3) it was agreed to answer to this liaison as stated in **Tdoc 102**. See discussion on that in section 9 of this report).

TSGW3#1(99)096 'Liaison statement on UMTS Simultaneous Mode' from SMG12 was presented by Per Willars. It asks this group to consider the case when a UE is simultaneously connected to both CS and PS domains. Per pointed out that we have already considered a number of functions to make this possible, for example the distribution function in the UTRAN.

An answer will be drafted by Richard Townend of BT (See discussion on **Tdoc 98** in section 2 of this report). It will state that we have already considered this and our specifications support the required functionality. It will be sent to SMG12 and TSG SA, and a copy to TSG RAN.

5   ORGANISATION OF WORK

5.1   Work plan 9, 66

TSGW3#1(99)009 'Proposal for Work Plan for WG3' was presented by Göran Rune of Ericsson.

It was pointed out that the O&M requirements have an agreed Work Plan of an SMG6 TMN AdHoc. This work is to be migrated into this WG. It was agreed that the O&M work needs to be reflected in the work plan.

The work plan was approved as proposed.

Based on comment from Telecom Modus, it was later approved to add a note to the plan that work on different work items may be parallel, i.e. work on IE coding may be parallel to the work on message contents.

TSGW3#1(99)066 'Iu Work Items' Kevan Hobbis of Motorola. This contribution proposes to implement distinctly separate control and user planes for the Iu Interface in PSTN/ISDN and IP domains. It was discussed how this relates to the discussion SMG12, which was referred to in the contribution.

Motorola clarified that the proposal for separate work item means that they should be listed in **Tdoc 009** as separate items.

It was agreed to return to this item after discussion on the work organisation (**Tdoc 010**) and possibly any

liaison from SMG12 on this issue (none were received addressing this particular issue). See section 5.2.

5.2   Work methods; organisation (subgroups etc) 10, 75

TSGW3#1(99)010 'Proposal of work procedures' was presented by Göran Rune of Ericsson.

The O&M working procedures were discussed. Vodafone expressed their concern that if the O&M issues are handled as separate parallel session, then it may not attract the right people. Their comment was that it should be handled by the individual interface groups. Nokia commented that their plan is to send a UTRAN O&M expert to the meeting, and if the work is split among the interface groups, then it may be that the O&M issues are discussed at the same time in many different parallel sessions. It is easier to co-ordinate if O&M is a separate session.

It was agreed that the O&M SWG needs more discussion, and it will be noted to be FFS.

It was also agreed that WG3 plenary is responsible for the 3 internal documents.

Richard Townend from BT commented that the more far reaching decisions from the SWGs should be at least well discussed in the plenary meetings.

Nicolas Drevon from Alcatel points out that there is not enough time allocated to the plenary meetings compared to time allocated to sub-working group meetings since a lot of topics may be related either to several sub -working groups or to non of them

Atte Länsisalmi from Nokia explained that this type of meeting structure is used in T1P1.5, one of the organisational partners, and that the structure is working well over there.

It was understood that the week schedule shown in the document needs to be viewed as a principle, and flexibility in general should be allowed. The convenor commented that in the beginning of the group, more time can be allocated to the opening and closing plenary.

It was agreed to review the related contribution **Tdoc 75** from Nortel.

TSGW3#1(99)075 'Notion of Work Package' was presented by Jean-Marie Calmel of Nortel. Jean-Marie clarified that this contribution proposes an alternative for the SWGs in even more flexible way.

Nicolas Drevon of Alcatel asked whether the Work Package may make decisions. Jean-Marie answered that the decisions should be reported in the WG meeting, and finalised there.

Discussion and decisions on **Tdocs 10** and **75**:

It was viewed that the proposals have many similarities.

Alcatel, France Telecom and Mitsubushi point out that decisions cannot be taken at sub-working group level since many companies send one or two delegates and it is quite impossible for them to attend all the meetings. A report has to be made at the plenary by the rapporteur.

BT commented that basically what is needed to handle parallel meetings is, contributions to be sent out in time so that companies can prepare for each meeting, and fairly well defined agenda for the meetings, so that the companies know when and who to send to the meetings.

The terminology was discussed. WP, SWG, AdHoc. Both proposals still include the possibility to have AdHoc meetings.

The proposal from Ericsson was agreed with the following additions and modifications:

- Decisions at SWGs also need to be agreeable at the WG3 level, and if new arguments come up in WG level, the item may need to be re-discussed.

- The reporting from the SWGs should be detailed level so that it is possible to follow progress by attending plenary only.

- The SWGs are responsible for the technical content of the named specifications, but the documents are approved at the plenary level.

- Meeting schedule should be agreed at the preceding meeting, but some flexibility should be allowed in the meeting, e.g. depending on the number of contributions etc.

- The O&M SWG is FFS. Three other SWGs established as proposed (Iu, Iur/Iub c-plane and Iur/Iub u-plane)

- The time needed for the plenary may need to be extended, and the proposed week structure should be viewed as an example.

- WG3 may create and disband SWGs as seen appropriate at plenary meetings.

- It was agreed that the contributions should be sent to the plenary level meeting, but they should already address certain agenda point.

- The SWGs can meet between the plenary meetings with face to face meetings or with conference call. Also e-mail discussions are supported.

It was further agreed that:

- The meeting structure is taken into use at the third meeting in April. It was commented that it should be seen then that there is a need for these parallel sessions, even though it seems clear now already.

- It was agreed that when AdHoc groups are created the general rules stated by **Tdoc 75** from Nortel. It will be added to the working practices addressing the formation of an AdHoc group.

These agreements should be included to the I3.03 (Work Plan and Work Organisation). Ericsson volunteered to be the editor for this.

Decision on **Tdoc 66** from Motorola:

It was clarified that the proposal is to split the control and user planes to different work items. Also the proposal is to use two different signalling bearers for the PSTN/ISDN and IP domains.

It was pointed out by Fujitsu that this proposal is very difficult from the single CN entity vendor point of view.

It was discussed that since there is no clear decision that there will be two different signalling bearers, it is premature to organise the work based on that. There was no support for the proposal, and the document was not approved.

5.3 Future meetings

After long discussion about the #2 meeting, the future meetings were agreed as follows:

- #2, March 15-19. Hosted by Ericsson in Stockholm

- #3, April 19 – 23. Hosted in Japan. If there is TSG RAN meeting on that week, then the meeting is moved to the following week (April 26 – 30, still hosted in Japan).

- #4, May 31 – June 4. **Host needed !!**

- #5, July 5 - 9. Hosted by Nokia in Helsinki

- #6 August 5 – 9. **Host needed !!**

6 DOCUMENT STRUCTURE AND APPOINTMENT OF EDITORS 8, 65

TSGW3#1(99)008 'Proposal of Specification Structure for WG3' was presented by Göran Rune of Ericsson.

It was clarified that this document structure had already been approved in 3GPP RAN meeting #1 (December –98), SMG2 ARC (October –98) and SMG2 (November –98).

The related contribution **Tdoc 65** from Motorola was discussed before detailed discussion.

TSGW3#1(99)065 'Iu Iur and Iub Work Items' was presented by Kevan Hobbis of Motorola. It was clarified that this structure is in line with the one proposed by Ericsson.

Discussion ad decisions on **Tdoc 8**:

Nortel asked why General Aspects and Principles for the Interfaces could not be merged. It was answered that the proposal does not preclude the merging, and it could be discussed.

Alcatel asked where the information from 'Manifestations of Handover and Streamlining' is placed. The convenor answered that probably in the General Architecture Description and in Examples of Signalling Procedures. It was agreed to have it as a separate technical report with the title "Manifestations of Handover and SRNS Relocation", I3.02.

It was clarified that there are two separate documents for CCH Data Streams in Iur and Iub Interface, because they are different, whereas the DCH Data Stream is same for Iur and Iub Interface, and can be documented in one document.

Nortel also asked whether the Iur and Iub user plane protocol for CCH data streams could be specified in the same specification, and if the technology deviates, they may be divided later into separate documents. It was commented that current assumption is that they are different.

The structure proposed from **Tdoc 8** was approved by the group but Alcatel and Nortel with the following modifications:~~The structure proposed from **Tdoc 8** was approved with the following modifications~~:

- Addition of "Manifestations of Handover and SRNS Relocation" as a Technical Report (Internal to this group).

- For each interface, the "General Aspects" and "Principles" documents were merged resulting in the following three documents (instead of 6 as originally proposed): General Aspects and Principles of Iu Interface, General Aspects and Principles of Iur Interface, and General Aspects and Principles of Iub Interface. (The document numbering was later modified to fill the gap)

- It is noted that the documentation of O&M requirements will need further consideration.

- The description of "*Iur & Iub user plane protocol for DCH data streams*" document (S3.28 in **Tdoc 8**) was modified so that "*between SRNC and Node B*" is changed to "*used on Iur & Iub Interfaces*".

- The Workplan of the group was added to the list as an internal document I3.03

Nortel and Alcatel disagreed with the above decision to split the Iur and Iub specifications into DCH and CCH~~Nortel and Alcatel disagreed with the agreement~~, and commented that they have a view that there should be another structure of Iur and Iub user plane specifications.

The editors were discussed. The convenor pointed out that there are many documents, and many of them small, so one company can take several documents, and also those that can commit only to small effort can now take editorship. The convenor proposed to indicate volunteers for the document editing during the meeting.

The editors were selected later during the meeting as shown in the table and list below (This also shows the updated numbering. Refer to **Tdoc 8** and subsequently I3.03 for the full title and scope of each document):

Appointment of editors:

Title	Iub	Iur	Iu
General Aspects	S3.30: *Mick Wilson (Fujitsu)	S3.20: Kevin Hegerty (Lucent)	S3.10: Richard Townend (BT)
L1	S3.31: No volunteer	S3.21: No volunteer	S3.11: No volunteer
Signalling Transport	S3.32: Fujitsu : *Mick Wilson (Fujitsu)	S3.22: Seshaiah Ponnekanti (Telecom Modus/NEC)	S3.12: Seshaiah Ponnekanti (Telecom Modus/NEC)
Signalling Application	S3.33: Nobutaka Ishikawa (NTT DoCoMo)	S3.23: Björn Ehrstedt (Ericsson)	S3.13: Jyrki Jussila (Nokia)
Data Transport	S3.34 (CCH): Magnus Aldén (Telia)	S3.24 (CCH): Nicolas Drevon (Alcatel)	S3.14: *David Comstock (Ericsson)
User Plane	S3.35 (CCH): Jean-Marie Calmel (Nortel)	S3.25 (CCH): Nicolas Drevon (Alcatel)	S3.15: *Alain Maupin (Ericsson)
Data Transport	S3.26 (DCH): Sami Kekki (Nokia)		<no document here>

User Plane	S3.27 (DCH): Fabio Longoni (Nokia)	<no document here>

> * POST MEETING CHANGE: These names have been updated after the meeting as reported by the companies in the e-mail reflector (no change in companies).

- RAN Overall Description S3.01: Jean Marie Calmel (Nortel)

- RAN Functions: Examples on Signalling Procedures I3.01: Enrico Scarrone (CSELT)

- Manifestations of Handover and SRNS Relocation I3.02: Richard Townend (BT)

- Work Plan and Work Organisation I3.03: Björn Ehrstedt (Ericsson)

The new editors should provide the skeletons of the documents to the reflector. Documents in each row of the above table should share the same structure, so the editors of these should negotiate to make this possible. After the structure has been approved then the information from the merged baseline document can be added as agreed before.

The template for the new 3GPP documents should be 3GPP format. The correct template should be available from the 3GPP web site.

Since there were no volunteers for the L1 documents for the interfaces, the L1 specific information will be documented in the General Aspects document for the time being.

7 INCORPORATION OF MATERIAL FROM OUTPUT DOCUMENTS OF ORGANISATIONAL PARTNERS (ARIB, TTC, ETSI, T1, TTA).

The following general merging procedure was agreed as proposed by the convenor:

- The procedure for producing 3GPP baseline documents consists of two steps: The first step is merging text from ETSI and TTC/ARIB, and the second step is to divide the documents according to the agreed specification structure.

- The merged document should be provided during the week. The ETSI editors can work as the interim editors for these documents.

The convenor also clarified that in the merging process input is only considered from documents of the partner organisations. In this case documentation has been received only from ETSI and TTC/ARIB. In case there are discrepancies between the two inputs, and no conclusion on the area can be reached in short discussion, both information will be included, and a study item with responsible rapporteur will be created.

7.1 Decision on documents to be used as a baseline documentation.

7.2 Review text of baseline documentation and agree as working assumptions

7.3 Incorporation of text from other output documents of organisational partners into the

Discussion on agenda items 7.1 – 7.3 was conducted for each input document from TTC/ARIB and ETSI separately as reported in the following sections.

Architecture: 40, 73, 82, 84

TSGW3#1(99)073 'Manifestations of Handover and Streamlining (SRNS Relocation) v8' was discussed

shortly. It was already decided to have an internal report in this area (I3.02). It was agreed to use the document from ETSI as the baseline document (no comparable document from TTC/ARIB).

TSGW3#1(99)040 'UMTS ZZ.01 UTRAN Architecture Description'. This is the ETSI Architecture document approved in SMG2. It was not reviewed in detail.

TSGW3#1(99)082 'TTC/ARIB UTRAN Architecture draft specification' This document shows the TTC/ARIB view on the Architecture. It is based on the ETSI document, and it shows with revision marks where there is a difference to the current TTC/ARIB documents. It was clarified that the revision marks only show difference to current TTC/ARIB documentation, and not TTC/ARIB position on what text should be accepted to the 3GPP baseline document (See **Tdoc 84**).

TSGW3#1(99)084 'Comparison of the UTRAN Architecture Description in TTC/ARIB and ETSI' This is a comparison document that proposes way forward in solving the differences between the two baseline documents.

Takaaki Satoh of NTT DoCoMo guided the group through **Tdoc 82**, and reference was made to **Tdoc 84** whenever needed. The following decisions were made in the section by section review:

- 1-5.1: No technical difference. The sections in the beginning need to be updated according to 3GPP template.

- 5.2: ME agreed to be deleted as proposed by TTC/ARIB.

- 5.3 – 7: No technical difference.

- 8 Deletion accepted as proposed by TTC/ARIB.

- 8.1 – 9.1: Text from ETSI approved.

- 9.2: It was accepted to use text from ETSI.

- 9.3: It was pointed out that the content of this section is no longer in line with the development in TSG RAN WG2. It was agreed to state that this section is open for further study, and that the proposed comments from TTC/ARIB as well as the contributions to this meeting will be handled later in the agenda.

- 10: Text approved from ETSI

- 11 - 11.2.1: No technical difference.

- 11.2.1.1 Noted in the workplan that work in this area is needed to align with S2.01 and S2.31.

- 11.2.2.1: ETSI Terminology kept.

- 11.2.2.2 – 11.2.3: No technical difference.

- 11.2.3.1: Accepted as proposed by TTC/ARIB.

- 11.2.3.2 – 11.2.3.4: No technical difference.

- 11.2.3.5: Accepted as proposed by TTC/ARIB.

- 11.2.3.6 – 11.2.3.5: No technical difference.

- 11.2.3.8: A section for handover to PDC added as proposed by TTC/ARIB.

- 12.1.1 and 12.1.2: Accepted as proposed by TTC/ARIB. In section 12.1.2 a note will be added by the editor that the NAS messages are carried by Radio and Iu protocols.

- 12.2 – 12.5 (under main heading): No technical difference.

- 12.5.1 (Under main heading): The part concerning radio link characteristics was accepted as proposed. The CCH data streams in the Iur were discussed. It was agreed to keep the text from ETSI, but it was agreed to also create a study item on this area.

Study Item ARC/1: CCH & DSCH in Iur Interface

- 12.5.1.1 – 12.5.1.1.4: No technical difference.

- 12.5.1.1.5: Accepted as proposed by TTC/ARIB.

- 12.5.1.1.6: Accepted as proposed by TTC/ARIB.

- 12.5.1.2 – 12.5.1.2.1: No technical difference.

- 12.3.1.2.2.1: The proposed change was not accepted but it was agreed to change "*local RNC*" to "*Drift RNS*".

- 12.3.1.2.2.2: No technical difference.

- 12.3.1.2.2.3: ETSI text kept.

- 12.3.1.2.2.4 – 12.5.1.3: No technical difference.

- 12.5.2: Bullets 3 and 4: The inclusion of synchronisation information in RACH and FACH Data Streams was discussed. ETSI proposed that information to be included, but TTC is not including this information. It was agreed to keep the ETSI text but to change "*synchronization information*" to "*frame number*". Last bullet: Iub DSCH data streams. It was agreed to keep the ETSI text.

- 12.5.2.1 – 12.5.2.2 (main heading): No technical difference.

- 12.5.2.2.1.1: Allocation of DL channelisation codes. It was agrees to add a note that this is FFS.

Study Item ARC/2: Allocation of DL channelisation codes.

- 12.5.2.2.1.2 – 12.5.2.2.5: No technical difference.

- 12.5.2.2.6: Noted as FFS. See also study item ARC/2.

- 12.5.2.2.8: Text agreed as proposed by TTC/ARIB.

- 12.5.2.3.1.4: The text from ETSI document was kept.

It was pointed out that this document will be kept also in 3GPP in its original structure as a single document. Only the interface documents are split into many specifications.

Signalling flows: 39, 83.

TSGW3#1(99)039 'UMTS ZZ.01 UTRAN Architecture Description'. This is the ETSI Signalling Flow document approved in SMG2.

TSGW3#1(99)083 'TTC/ARIB UTRAN Example of Procedures draft specification' This is the Signalling Flow document from TTC/ARIB.

Since there was no comparison document, it was decided to review ZZ.02.

Per Willars guided the group through **Tdoc 39**. The following decisions were made in the section by section review:

- 1 – 7.1 (main heading): No technical difference. The sections in the beginning need to be updated according to 3GPP template.

- 7.1.1: Flow from TTC/ARIB added with change that "*Serving RNC*" is change do to "*Controlling RNC*", and "*Serving RNS*" is removed from Node B. It will also be indicated that this procedure is for RRC Idle mode.

- 7.1.2 - 7.2: No technical difference.

- 7.2.1 Paging was agreed from ETSI document (for the two cases/subsections in 7.2.1).

- 7.2.2 (text under main heading): No technical difference.

- 7.2.2.1. It was discussed that ZZ.02 used to be in line with the L23 work in ETSI, but this may have changed. It was agreed that this section should be updated according to L23 work in 3GPP, if there are any inconsistencies. It was agreed that "*Transparent Message*" should be changed to "*Direct Transfer*"

- 7.2.2.2: No technical difference.

- 7.2.3 (text under main heading): No technical difference.

- 7.2.3.1: Text from ETSI accepted with the modifications that message 5 is stated FFS. The message

names should be aligned with the Iub messages that are to be discussed in this meeting.

<u>Study Item SIG/1</u>: Synchronisation at DCH Establishment.

- 7.2.3.2: The text kept with the note that details are up to TSG RAN WG2.

- 7.2.4.1 and 7.2.4.2: Release procedures form TTC/ARIB Accepted with the change that the procedure in Iu is Iu Release.

- 7.2.5: Ok (No text in either document).

- 7.2.6 (text under main heading): No technical difference.

- 7.2.6.1: It was agreed to keep the ETSI procedure.

- 7.2.6.2: Procedure from TTC/ARIB was accepted with the modifications that AAL setup message should be replaced with a box indicating transport bearer setup. Also it needs to be stated that it is FFS whether to use Bearer Setup or RAB Assignment procedure in Iu. This may apply to other procedures as well, and therefore it should be stated as a general note in the document.

- 7.2.6.3: There was no text in either document, so it was agreed to remove this section.

- 7.2.6.4: Procedure from TTC/ARIB was accepted with the same modifications as in 7.2.6.2.

- 7.2.7 (text under main heading): No technical difference.

- 7.2.7.1: ETSI procedure kept.

- 7.2.7.2: Procedure from TTC/ARIB was accepted with the modifications that AAL setup message should be replaced with a box indicating transport bearer release. Also it needs to be stated that it is FFS whether to use Bearer Release or RAB Assignment (clear) procedure in Iu. Also a note is added that this procedure is still FFS.

- 7.2.7.3: There was no text in either document, so it was agreed to remove this section.

- 7.2.7.4: Procedure from TTC/ARIB was accepted with the same modifications as in 7.2.7.2.

- 7.2.8: Ok (No text in either document).

- 7.2.9 (text under main heading): No technical difference.

- 7.2.9.1: DCH – DCH Modification Procedure from TTC/ARIB was accepted with the modifications that AAL setup message should be replaced with a box indicating transport bearer modification. Also it needs to be stated that it is FFS whether to use Bearer Release or RAB Assignment (modify) procedure in Iu.

- 7.2.9.2: CCH – CCH Procedure from TTC/ARIB was accepted with the same modifications as in 7.2.9.1, Also a note is added that this procedure is still FFS.

- 7.2.9.3 A new subsection added for CCH – DCH Modification case. Procedure from TTC/ARIB was accepted with the same modifications as in 7.2.9.2.

- 7.2.9.4 A new subsection added for DCH – CCH Modification case. Procedure from TTC/ARIB was accepted with the same modifications as in 7.2.9.2.

- 7.2.10 (text under main heading): No technical difference.

- 7.2.10.1 Procedure from TTC/ARIB was accepted with the modification that if paging is initiated from UTRAN it is indicated in the message.

- 7.2.10.2: Process in L23 group will be needed before this can be discussed, i.e. no change at this time.

- 7.2.10.3: Procedure from TTC/ARIB was accepted with the modification that AAL connection setup should be replaced with a box indicating transport bearer setup.

- 7.2.10.4: Procedure from TTC/ARIB was accepted with the modification that AAL connection release should be replaced with a box indicating transport bearer release.

- 7.2.X: A new subsection will be created with title "*Physical Channel Reconfiguration*". The first subsection here is DCH to DCH case, and Procedure for that was accepted from TTC/ARIB.

- 7.2.11 (text under main heading): No technical difference.

- 7.2.11.1: The procedure from the ETSI document was approved. Also a new study item is added.

Study Item SIG/2: Radio Link setup/addition in the Iur Interface.

- 7.2.11.2: The procedure from the ETSI document was approved.

- 7.2.11.3: The procedure from the ETSI document was approved.

- 7.2.12 (text under main heading): No technical difference.

- 7.2.12.1.1: A new section for Intra Node B Hard HO accepted from TTC/ARIB document.

- 7.2.12.2.1: The procedure from the TTC/ARIB document was approved.

- 7.2.12.2.2: The procedures from the ETSI document was approved.

- 7.2.13 (text under main heading): No technical difference.

- 7.2.13.1: The procedure from the TTC/ARIB document was approved.

- 7.2.13.2: The procedure from the TTC/ARIB document was approved with the note that signalling channel setup procedure is FFS. Also the SRNS Relocation is FFS. Therefore the whole procedure is FFS. It should be noted that this is the case.

- 7.2.14 (text under main heading): No technical difference.

- 7.2.14.1: The procedure from the TTC/ARIB document was approved.

- 7.2.14.2: The procedure from the TTC/ARIB document was approved with the note that the procedure is FFS.

- 7.2.15 - 7.2.15.1: No technical difference.

- 7.2.15.2: The procedure from the ETSI document was approved with the note that the procedure is FFS.

- 7.2.16 (text under main heading): No technical difference.

- 7.2.16.1: The procedure from the ETSI document was approved.

- 7.2.16.2: The procedure from the ETSI document was approved.

- 7.2.16.3: The procedure from the ETSI document was approved.

- 7.2.16.4: The procedure from the ETSI document was approved.

- 7.2.17 – 7.2.18: No technical difference.

The following signalling flows were not in ZZ.02 (**Tdoc 39**), but were in TTC/ARIB document **Tdoc 83**. Takaaki Satoh of NTT DoCoMo identified the new procedures from **Tdoc 83** as follows:

- Transport Channel Reconfiguration DCH – DCH on page 23: This was agreed to be new subsection in section 7.2.X.

- Transport Channel Reconfiguration CCH – CCH on page 24: This was agreed to be new subsection in section 7.2.X.

- Transport Channel Reconfiguration CCH – DCH on page 25: This was agreed to be new subsection in section 7.2.X.

- Transport Channel Reconfiguration DCH – CCH on page 26: This was agreed to be new subsection in section 7.2.X, but it is indicated to be FFS.

- Notification on page 6: This was agreed to be new subsection in section 7.2.X, but it is indicated to be FFS.

- Transport Format Combination Control on page 27, and Measurement Control on page 42: It was agreed that this document should highlight how different interfaces work together, and if a procedure only one interface/protocol then they should not be included. These procedures were not included.

- DL Code reconfiguration Request on page 433: This was agreed to be new subsection in section 7.2.X with the note that the Iub message id FFS.

- Direct Transfer (UL and DL) on pages 46 and 47: This was agreed to be new subsection in section 7.2.X, separate subsections for UL and DL cases.

- Power Control on page 48: This was agreed to be new subsection in section 7.2.X, but it is indicated to be FFS whether it is done this way or via DCH frame protocol.

- Outer-Loop Power Control on page 48: This was agreed to be new subsection in section 7.2.X, but it is indicated to be FFS whether it is done this way or via DCH frame protocol.

Iu: 53, 67, 68.

TSGW3#1(99)053 'UMTS ZZ.11, Description of Iu Interface v 0.1.0'. This is the ETSI Iu Interface document approved in SMG2. It was not reviewed in detail.

TSGW3#1(99)067 'Description of Iu (TTC/ARIB)' This document shows the TTC/ARIB view on the Iu. It is based on the ETSI document, and it shows with revision marks where there is a difference to the current TTC/ARIB documents. It was clarified that the revision marks only show difference to current TTC/ARIB documentation, and not TTC/ARIB position on what text should be accepted to the 3GPP baseline document (See **Tdoc 68**).

TSGW3#1(99)068 'The comparison of UMTS-ZZ.11 and TTC/ARIB description of Iu' This is a comparison document that proposes way forward in solving the differences between the two baseline documents.

Cheng Hock of NEC guided the group through **Tdoc 67**, and reference was made to **Tdoc 68** whenever needed. The following decisions were made in the section by section review:

- Chapters 1-7: No technical difference. The sections in the beginning need to be updated according to 3GPP template.

- Chapter 8. The TTC/ARIB version contains the explicit signalling stacks in this section. In ETSI documentation it was aimed that this section only shows the general protocol structure and the detailed protocol stacks is defined in later sections. The problem with the figure is that it shows the SS7 protocol stack which has lately been challenged by some companies in ETSI. The ETSI figure was accepted, since it allows both options. The TTC figure is inserted also. It was clear that the signalling bearer needs to be discussed. Motorola does not accept the TTC/ARIB information to be inserted to the document.

Study Item Iu/1: Use of SS7 as a signalling bearer for Iu & Iur

- 9 – 9.2.2: No technical difference.

- 9.2.2.1: It had already been identified by ETSI, that this section would need to be re written. There are contributions to this meeting proposing the new structure for this procedure. It was agreed that the message names from ETSI can be adopted as long as it is made sure that the message is the same. The Signalling Channel Set up is not included as a separate procedure in ETSI documents.

Study item Iu/2: Signalling Channel Set up as a separate procedure.

- TTC/ARIB does not have Proceeding 1 and Proceeding 2 messages.

Study item Iu/3: The SRNC Relocation procedure as a whole, especially the need for Proceeding 1 and Proceeding 2 messages.

Study item Iu/4: The triggering of SRNS relocation from the target RNS.

- 9.2.2.2: The section from TTC/ARIB is in line with UMTS ZZ.02, and it was accepted. The technical details are still to be discussed.

- 9.2.2.3: The terminology RAB Assignment Request was accepted. TTC/ARIB includes separate procedures for setting up and releasing bearers in the UTRAN, whereas the ETSI procedure is combined.

Study item Iu/5: Separate or combined set up, modify and release.

- 9.2.2.4: Text from ETSI approved. Applies also to Signalling Channel Release.

- 9.2.2.5: Text from ETSI approved.

- Bearer Reconfiguration. See study item Iu/5

- Signalling Channel Setup. See study item Iu/2.

- 9.2.2.6: No technical difference.

- 9.2.2.7: Text from ETSI approved.

- 9.2.2.8: The paging response was removed from this procedure to show that it is a separate procedure element.

- 9.2.2.9: Text from ETSI approved.

- 9.2.2.10: It was clarified that the ETSI procedure is only related to the Iu Interface, and does not refer to the overall procedure between the CN and UE. The difference between the ETSI and TTC/ARIB procedure is that the RNC gets the ciphering algorithm from the UE, and in ETSI procedure the algorithms are received from the CN, and the RNC may select the algorithm based on the UE's capabilities.

Study item Iu/6: Ciphering algorithms.

- 9.2.2.11: Text from ETSI approved.

- 9.2.2.12: Text from TTC/ARIB approved.

- Initial UE Message. This procedure is carrying the Complete L3 Information message received form the UE. The name of the message was discussed. It was decided to change the name to Initial UE Message, and the description from TTC/ARIB was accepted.

- 9.2.3 RANAP Messages: The ETSI delegates requested more discussion on the need of each parameter. It was agreed to include the information with a note in the beginning of the section that this information is the starting point and has not been agreed.

- 9.2.4: TTC/ARIB is proposing a coding method for the messages using octet based definition. Atte Länsisalmi of Nokia explained the situation in SMG2 where an AdHoc activity had been set up to study this issue. The outcome of the AdHoc was that abstract syntax that can be handled by tools should be used rather than specifying the transfer syntax separately for each protocol. There is no explicit proposal from ETSI for the Abstract Syntax of the Iu Interface, because the work didn't get this far. The proposed text from TTC/ARIB was not approved, and a study item is created.

Study item Iu/7: Usage of abstract syntax (ASN.1 with CSN.1 as encoding rules, as recommended by SMG2) versus explicitly coding the transfer syntax (bit matrix, as proposed by TTC/ARIB).

- 9.3.1 – 9.3.2: No technical difference.

- 9.3.3: See study item Iu/1.

- 10 – 13: Ok (no text exist for these sections)

- 14. The history will be restarted.

The convenor wanted to select rapporteurs for the study items, but there were no volunteers at this time. The delegates were asked to volunteer by the end of the meeting.

Iur: 32, 69, 71, 86.

TSGW3#1(99)032 'UMTS ZZ.12 Description of Iur Interface V0.1.0'. This is the ETSI Iur Interface document approved in SMG2. It was not reviewed in detail.

TSGW3#1(99)069 'TTC/ARIB Iur draft specification' This document shows the TTC/ARIB view on the Iur. It is based on the ETSI document, and it shows with revision marks where there is a difference to the current TTC/ARIB documents. It was clarified that the revision marks only show difference to current TTC/ARIB documentation, and not TTC/ARIB position on what text should be accepted to the 3GPP baseline document (See **Tdoc 71**).

TSGW3#1(99)071 'Comparison between Iur in ETSI and TTC/ARIB' This is a comparison document that proposes way forward in solving the differences between the two baseline documents.

TSGW3#1(99)086 'Corrections for R3-069 / R3-070 (Iur and Iub documents of TTC/ARIB)' This document

is an addendum to **Tdoc 69**.

Nobutaka Ishikawa of NTT DoCoMo guided the group through **Tdocs 69** and **86**, and reference was made to **Tdocs 71** whenever needed. The following decisions were made in the section by section review:

- 1 – 4: No technical difference. The sections in the beginning need to be updated according to 3GPP template.

- 5.1 - 5.3: It was agreed to keep the ETSI text.

- 5.4: It was agreed to keep the ETSI text.

- 6.1: It was agreed to keep the ETSI text.

- 6.2: It was agreed to keep the ETSI text, but it should be noted that a study item in this area had already been created.

- 6.3 and 6.4: No technical difference.

- 7. ETSI text kept, but discuss Radio link Setup more in section 9.

- 8: Both ETSI and TTC/ARIB figure and text kept, and the Iur Signalling Bearer is added to the existing signalling bearer Study Item from Iu Interface.

- 9 – 9.2.2 (text under main heading): It was agreed to keep the ETSI text.

- 9.2.2.1: It was agreed to take text from TTC/ARIB with the modifications that in the first sentence "*to add a cell from another RNC*" is changed to "*to add the first set of cells from another RNC*", and the second to last paragraph is removed, except the last sentence.

- 9.2.2.2: Generally text form ETSI was agreed with the following points to note: Channelisation code agreed from ETSI, and RNS kept instead of changing to RNC. The proposed addition from **Tdoc 86** was accepted, but the convenor pointed out that in the SMG2 plenary, when the ETSI document was approved, it was decided to add a note in this section stating that the issue of transport layer addressing is FFS. The message names from TTC/ARIB were accepted. The unsuccessful case accepted from TTC ARIB. In the first sentence "*a cell*" changed to "*an additional cell or additional cells*".

- 9.2.2.3: Text from ETSI and modifications from TTC/ARIB accepted with an additional change that the message names are "*RL Deletion*" and "*RL Deletion Response*".

- 9.2.2.4: Modifications in the first paragraph and message names from TTC/ARIB were accepted. It should also be noted that Channelisation code and transport addressing are FFS. The ETSI list of parameters was kept. The note on top of the successful case figure remains. The unsuccessful case as proposed by TTC/ARIB was accepted with the modification that the box labelled "*All Radio Links Addressed*" is removed.

- 9.2.2.5: **Tdoc 86** presents a correction of the TTC/ARIB text. This text was accepted, but marked as FFS. It is FFS whether the mechanism presented here is used or whether in-band signalling should be used.

Study item Iur/1: Out-band or in-band Power Control (both UL and DL).

- 9.2.2.6: Text from TTC/ARIB accepted, but marked as FFS. It is FFS whether the mechanism presented here is used or whether in-band signalling should be used. See also Study Item Iur/1.

- 9.2.2.7: **Tdoc 86** presents a correction of the TTC/ARIB text. It was clarified that in TTC ARIB there is a different procedure for the actual reconfiguration, and this is only the trigger. It was discussed that the idea in ETSI was that they would happen in one procedure. It was agreed to include both the existing ETSI text and proposed ARIB/TTC modifications, and indicate that it is FFS.

Study item Iur/2: Separate reconfiguration trigger and reconfiguration procedure, or combined DRNC initiated DL reconfiguration procedure.

- 9.2.2.8: It was agreed to include both the existing ETSI text and proposed ARIB/TTC modifications, and indicate that it is FFS.

Study item Iur/3: Cell and URA Update need to be clarified.

- Radio Link Dropped Notification from the ETSI document (section 9.2.2.6 of **Tdoc 32**). It was agreed to keep the ETSI text.

- Load Indication from the ETSI document (section 9.2.2.7 of **Tdoc 32**). Kept but

- Radio Measurements Reporting from the ETSI document (section 9.2.2.8 of **Tdoc 32**). . Kept but indicated FFS.

- URA Paging Request from the ETSI document (section 9.2.2.9 of **Tdoc 32**). Kept as is.

- SRNC Relocation Commit from the ETSI document (section 9.2.2.10 of **Tdoc 32**). Kept but marked as FFS (Study item on SRNC Relocation).

- 9.2.3: Information elements: Proposed text from TTC/ARIB added with a note that these have not been discussed and are FFS (The same handling as in Iu).

- 9.2.4: Information element coding: Proposed text from TTC/ARIB added with a note that these have not been discussed and are FFS (The same handling as in Iu). See also study item on Iu/7 that is applicable to this also.

- 9.3.1 – 9.3.2: No technical difference.

- 9.3.3: Both texts kept as this is a study item already.

- 10 – 11: Editors notes in ETSI document can be kept.

- 11.2.1 and 11.2.5 ETSI text kept (See also study item ARC/1).

- Annex Iur Parameter List. The headings of the columns in RAB setup section need to be corrected (they are now all Radio Link Reconfiguration). They should be (from left): Radio Link Reconfiguration - prepare, -ready, -commit, -failure and -cancel. The relation of this annex to section 9.2.3 was discussed. It was agreed that all of this information should be in section 9.2.3 anyway. It was also discussed that the list of parameters is also included in the examples of Examples on Signalling Procedures document. It was agreed to include this as an annex to the Examples on Signalling Procedures document, and to state that they are FFS.

Study item Iur/4: It should be studied whether the parameters in the Examples on Signalling Procedures document should be presented in an Annex or with the procedures themselves.

It was later decided (when Iub was discussed) that the Annex should not be included in the Examples on Signalling Procedures document, but it should rather stay here with indication that it is FFS.

Iub: 74, 70, 72, 86

TSGW3#1(99)074 'UMTS ZZ.13 Description of Iub Interface V1.0.0'. This is the ETSI Iub Interface document approved in SMG2. It was not reviewed in detail.

TSGW3#1(99)070 'TTC/ARIB Iub draft Specification' This document shows the TTC/ARIB view on the Iub. It is based on the ETSI document, and it shows with revision marks where there is a difference to the current TTC/ARIB documents. It was clarified that the revision marks only show difference to current TTC/ARIB documentation, and not TTC/ARIB position on what text should be accepted to the 3GPP baseline document (See **Tdocs 72**).

TSGW3#1(99)072 'Comparison between Iub in ETSI and TTC/ARIB' This is a comparison document that proposes way forward in solving the differences between the two baseline documents.

TSGW3#1(99)086 'Corrections for R3-069 / R3-070 (Iur and Iub documents of TTC/ARIB)' This document is an addendum to **Tdoc 70**.

The group went through **Tdocs 70** and **86**, and reference was made to **Tdocs 72** whenever needed. The following decisions were made in the section by section review:

- 1-5: No technical difference. The sections in the beginning need to be updated according to 3GPP template.

- 6.1: It was agreed to keep the ETSI text.

- 6.2: It was agreed to keep the ETSI text. References need to be corrected.

- 6.3 – 6.4: It was agreed to keep the ETSI text.

- 7: It was agreed to keep the ETSI text.

- 8: The general protocol structure from ETSI should be kept. The need for the more detailed protocol stacks was discussed. It was clarified that AAL2 in TNCP of TTC/ARIB figure should be Q.AAL2. The layer containing (FFS) *2 was discussed. It was agreed to include the figure with this correction and the above mentioned layer deleted. The note 2 will be reformulated to state that the use of same VCC for NBAP and Q.AAL2 is FFS.

- 9 – 9.2.1 ETSI text remains

- 9.2.2. The ETSI structure to specify NBAP Common and Dedicated Procedures separately was agreed.

- 9.2.2.1: Message names changed according to TTC/ARIB, they are Radio Link Setup and Radio Link Setup Response. Channelisation kept as in ETSI and Unsuccessful case agreed.

- 9.2.2.2: Message names were agreed from TTC/ARIB, and unsuccessful case added as proposed. Also the removal of a sentence as shown in **Tdoc 86** was agreed.

- 9.2.2.3: Message names were agreed from TTC/ARIB, channelisation code kept as in ETSI document, and unsuccessful case added as proposed.

- 9.2.2.4: Message names were agreed from TTC/ARIB.

- 9.2.2.5 and 9.2.2.6: Text agreed from TTC/ARIB, but indicated that they are FFS (see also study item Iur/1).

- 9.2.2.7: Correct proposal text from TTC/ARIB is shown in **Tdoc 86**. Text agreed from TTC/ARIB, but it is indicated that this procedure depends on the allocation of DL code and it is therefore FFS.

- 9.2.2.8 Paging Procedure from **Tdoc 86** agreed. In addition it was agreed to change "*Location Identity or URA id*" to "*Location Identity, URA id or a list of cells*". Also a note is added that the selection of which Identity to use is FFS.

Study Item Iub/1: Which Identity (e.g. Location Identity, URA id or a list of cells*)* to use in Paging procedure.

- 9.2.2.9 – 9.2.2.12: There was no proposal from TTC/ARIB, so it was agreed to keep the ETSI text. Note that there are two sections numbered 9.2.2.9, and they are both meant to be kept (with corrected numbering).

General comment: The changes related to the AAL Address as proposed by TTC/ARIB are not included.

- 9.2.3: Information elements: Proposed text from TTC/ARIB added with a note that these have not been discussed and are FFS (The same handling as in Iu and Iur). It was also noted that there is correction to section 9.2.3.17 in **Tdoc 86**. This correction was agreed.

- 9.2.4: Information element coding: Proposed text from TTC/ARIB added with a note that these have not been discussed and are FFS (The same handling as in Iu and Iur). See also study item on Iu/7 that is applicable to this also.

- 9.3: It was agreed to keep the original ETSI text.

- 10 – 14: It was agreed to keep the original ETSI text (history in Section 14 will be restarted).

- Annex Iub Parameter List: Noted as FFS. Also Iur parameter list was not moved to Signalling flow document.

Split of merged Description documents to new Specification documents:

The split of the Interface Description documents to Specifications should be done a s follows (the numbering in all documents is the same):

- 6, 7, and 8: to General Aspects of the interface

- 9.2: to Control plane signalling specification

- 9.3: to specification for signalling transport

- 10 and 11.3: to data transport and transport signalling for DCH/CCH

- 11.2: to user plane protocol specification (split CCH and DCH)

- 12: to L1 specification

- 13 nowhere

- Annex to C-plane signalling specification, and not in the Examples on Signalling Procedures.

This applies also to Iu, Iur and Iub Descriptions.

Study item Iu/2 was discussed. Göran Rune of Ericsson proposed that this message is not needed, because the only intention of this message is to setup the signalling channel in the Iu Interface, and it can be removed. Both TTC/ARIB and ETSI agreed to the proposal, and it was agreed to remove Signalling Channel Setup and Signalling Channel Setup Response from Description of Iu Interface and Examples on Signalling Procedures documents.

Responsible person for the study items:

Responsibilities for the Study Items were divided as follows (This is the same list as in **Tdoc 99** with the exception that last sentence from Iu/3 is removed, because it is the same as Iu/4):

#	Title	Responsible person	Contact from Partner	STATUS
ARC/1	CCH & DSCH in Iur Interface	Nicolas Drevon, Alcatel	Nobutaka Ishikawa, DoCoMo	open
ARC/2	Allocation of DL channelisation codes.	Seshaiah Ponnekanti, Telecom Modus	Takaaki Satoh, DoCoMo	open
SIG/1	Synchronisation at DCH Establishment	Fabio Longoni, Nokia	Nobutaka Ishikawa, DoCoMo	open
SIG/2	Radio Link setup/addition in the Iur Interface.			solved
Iu/1	Use of SS7 as a signalling bearer for Iu & Iur	Kevan Hobbis, Motorola	Cheng Hock, NEC	open
Iu/2	Signalling Channel Set up as a separate procedure.			solved
Iu/3	The SRNC Relocation procedure as a whole, especially the need for Proceeding 1 and Proceeding 2 messages.	Richard Townend, BT	Kalle Ahmavaara, Nokia	open
Iu/4	The triggering of SRNS relocation from the target RNS	Nobutaka Ishikawa, DoCoMo	Fabio Longoni, Nokia	open
Iu/5	Separate or combined set up, modify and release of RAB	Jean-Marie Calmel, Nortel	Cheng Hock, NEC	open
Iu/6	Ciphering algorithms	Cheng Hock, NEC	Michael Schopp, Siemens	open
Iu/7	Usage of abstract syntax (ASN.1 with CSN.1 as encoding rules, as recommended by SMG2) versus explicitly coding the transfer syntax (bit matrix, as proposed by TTC/ARIB).	Atte Länsisalmi, Nokia	Cheng Hock, NEC	open
Iur/1	Out-band or in-band Power Control (both UL and DL)	Björn Ehrstedt, Ericsson	Takaaki Satoh, DoCoMo	open
Iur/2	Separate reconfiguration trigger and reconfiguration procedure, or combined DRNC initiated DL reconfiguration procedure.	Kalle Ahmavaara, Nokia		open
Iur/3	Cell and URA Update need to be clarified.	Nicolas Drevon, Alcatel	Nobutaka Ishikawa,	open

			DoCoMo	
Iur/4	It should be studied whether the parameters in the Examples on signalling procedures document should be presented in an Annex or with the procedures themselves.	Cheng Hock, NEC		solved
Iub/1	Which Identity (e.g. Location Identity, URA id or a list of cells) to use in Paging procedure.	Takaaki Satoh, DoCoMo	Björn Ehrstedt, Ericsson	open

<u>Review of the first drafts of the merged documents:</u>

At the very end of the meeting, the first drafts of the merged documents were reviewed as follows:

TSGW3#1(99)090 'Merged UTRAN Architecture Description' was shortly presented by Jean-Marie Calmel of Nortel.

It was agreed that the merging process has been done correctly, and the editor was mandated to accept all these revisions, and start the work on changes agreed later in this meeting.

TSGW3#1(99)091 'RAN Functions, Examples on Signalling Procedures' was shortly presented by Enrico Scarrone of CSELT.

Enrico reported that it also includes the changes from this meeting, except for changes originating from **Tdocs 54** and **55**, because soft copies of those were not at hand.

It was agreed that the revisions done will be checked for both merging and meeting decisions, the comments on these should be given to the e-mail reflector by February 10.

TSGW3#1(99)092 'Merged Description of Iu Interface V 0.0.1' was shortly presented by Jyrki Jussila of Nokia. It was agreed that section 9.2.4 needs to be corrected to state the same note as in the previous section i.e. TTC/ARIB text kept with a note that it hasn't been checked and is FFS.

TSGW3#1(99)093 'Description of Iur Interface'. Due to lack of time it was not presented, but Björn noted that as agreed, this version only includes the revisions related to the merging process.

It was agreed that "*ZZ.12*" needs to be removed from the cover page. Comments on the revision marks should be sent to the e-mail reflector by February 10.

TSGW3#1(99)094 'Description of Iur Interface'. Due to lack of time it was not presented.

Comments on the revision marks should be sent to the e-mail reflector by February 10.

8 NEW CONTRIBUTIONS

8.1 General UTRAN Architecture

<u>Function split: 13, 14, 15. 16, 43.</u>

TSGW3#1(99)013 'Admission and Congestion Control Functions' was presented by Björn Ehrstedt of Ericsson. It proposes two new functions, admission control and congestion control.

The contribution was accepted with the change that the last sentence is removed from sections 2.1 and 2.2. These statements indicate the location of the presented functions, and they were left out because there was no agreement. Also a clarifying note is added that these functions are related to the radio resources. It was also noted that additional details are needed, and another contribution will be provided in this area by Ericsson.

TSGW3#1(99)014 'Functional Split of Admission Control' was presented by Björn Ehrstedt of Ericsson. This is in relation to the function that was added based on **Tdoc 13**. It was agreed that in Section 4, the "*neighbouring RNC*" would need to be changed to "*DRNC*". It was discussed whether the Average and Peak Power are enough to determine the admission control. Ericsson clarified that the algorithm of admission control is not proposed to be standardised, but only the information that is used by the algorithm.

There seemed to be two views, one is that the admission control is in the Node B (supported by NTT

DoCoMo and Telecom Modus (Telecom Modus wanted to have that at least as an option)) and the other that it is in the RNC as proposed by Ericsson (supported by Nortel, Nokia, Lucent and Vodafone). It seemed that the statement in the merged baseline document that the allocation of DL channelisation codes in the CRNC implies that the admission control is also in the CRNC. This has not been agreed however.

The different possibilities were discussed. The discussion also touched the issue of how and when the reporting is done, even though it was not included in the original proposal.

The following working assumption was agreed:

- The Admission control (as for UL Interference and DL Power management) is in the CRNC, and that function is not located in the Node B.

- The information as proposed in the contribution is send over the Iub Interface (Interference in the UL and Power in the DL).

- CRNC will control the reporting of Node B shall do, this may include no reporting, single report, periodical reporting, the reporting interval etc.

- There is a need to exchange interference and power information also over the Iur Interface.

Text from Ericsson contribution was agreed to be inserted to the UTRAN Architecture Description with two additional notes:

- The possibility of having Admission Control functions for UL Interference and DL Power management in Node B is FFS.

- Other information needed for Admission Control is FFS.

It was also clarified that there is also some 'admission control type' of functionality in the Node B, e.g. Node B may accept or reject the setup of a Radio Link.

TSGW3#1(99)015 'Functional Split of DL Inner Loop Power Control Function' was presented by Björn Ehrstedt of Ericsson. It was asked what is the DL Power Offset. Ericsson replied that it is needed to to make it possible to have different power levels in different Node Bs. Ericsson will return to the issue with more detail later.

Takaaki Satoh of DoCoMo asked why is DL initial Power in the Iur interface Radio Link Reconfiguration Message, but not in the corresponding Iub interface. Björn Ehrstedt replied that it should be removed also from the Iur. It was also clarified that the TDD mode is not covered in this contribution.

The contribution was not accepted at this time because more clarification is needed in some of the key issues.

TSGW3#1(99)016 'CN Discriminator for connection of CN-UE peer entities' was presented by Björn Ehrstedt of Ericsson. This function handles the distribution of messages from the UE to the two possible CN entities. It was asked whether this is an RRC function. Ericsson clarified that this function is also concerning the L23 issues, and it will also be contributed to that group, but the proposal is to have it as a UTRAN function. It was clarified that the figure in section 2 and all text in section 3 are not proposed to be included.

The proposal (inclusion of text form section 2) was accepted with the modification that all occurrences of "*CN discrimination octet set*" and "*CN discrimination octet*" are replaced by "*CN discriminator*", term "*RRC layer*" is removed from the third paragraph, and the fourth paragraph is modified to read "*The same peer domain distribution function exists in the UE*".

TSGW3#1(99)043 'Power Control Functions, FDD – TDD alignment' was presented by Massimo Dell'Acqua of Italtel. It proposes to apply the currently identified UL and DL Inner and Outer Loop Power Control functions also to TDD mode, and to remove the indication that they are only applicable to FDD mode.

The contribution was accepted as proposed.

Handover/SRNS relocation scenarios: 51

TSGW3#1(99)051 'TDD/FDD Handover' was presented by Massimo Dell'Acqua of Italtel. The proposal is to include in various scenarios of Manifestations of Handover and SRNS Relocation a statement that they are applicable for inter mode HO (FDD <-> TDD).

It was commented that some of the cases identified include soft handover, and it should be noted that the inter mode HO is always hard HO.

The contribution was agreed with the modification that a general note is included in the introduction section stating that inter mode HO is always hard HO.

<u>Synchronisation: 46, 49</u>

TSGW3#1(99)046 'Requirements for Frame-Synchronisation in TDD' was presented by Massimo Dell'Acqua of Italtel. This contribution proposes some new text for TDD synchronisation, and to indicate that part of the currently approved synchronisation information is not applicable to TDD mode.

It was discussed whether the TDD synchronisation scenario presented in the contribution as information would actually be applicable only for the node synchronisation. This was agreed to be the case, and furthermore it was agreed that the frame synchronisation is only applicable to FDD. Based on this understanding, and proposed text in the contribution, the following modifications were made to Architecture Description:

• Indication is added in section 10.1.2 and 10.4 that they are only applicable to FDD.

• Text proposed in the contribution is added to Section 10.5.

TSGW3#1(99)049 'Maximum Branch Delay of user data in case of inter-RNC Soft Handover' was presented by Massimo Dell'Acqua of Italtel. The contribution proposes a new section "*8.2.1 UTRAN Delay requirements*" and the proposed text is "*The maximum transmission delay of a diversity branch and the maximum processing delay introduced by single UTRAN network elements shall be defined.*"

It was clarified that the diversity branch in the contribution is used in a broad sense, and it includes processing in the network nodes, and transport over the Iur, Iub and radio interfaces.

It was understood that the consequence of this contribution is that the maximum delay for the network entities processing the data would be set.

The addition of the new section and text was accepted as proposed.

<u>RNTI: 56, 76, 82</u>

TSGW3#1(99)076 'Clarifications on RNTI' was presented by Seshaiah Ponnekanti of Telecom Modus. It points out some issues that need to be considered when the solutions for RNTI are discussed. It was agreed to do so, and the document was noted. See decisions after **Tdoc 82**.

TSGW3#1(99)056 'Definition and Usage of RNTI' was presented by Kalle Ahmavaara of Nokia. He clarified that in the main concepts this proposal is in line with the previous definition of RNTI, but provides better description and naming for the concepts.

It was clarified that the c-RNTI is always allocated to the user, but the UE is aware of its c-RNTI only in RACH/FACH state. It was also clarified that the c-RNTI is unique within the CRNC. The combination of RNC ID and s-RNTI are unique within a PLMN. Only in dedicated channel state the UE may have several c-RNTI. In CCH state there is only one c-RNTI per UE.

The DSCH case was discussed, and it was understood that there are different solutions under discussion, and how RNTI applies to them is FFS. Nokia commented that currently it seems that RNTI is not applicable to DSCH.

Nortel commented that the proposal is changing the concept of RNTI. The convenor agreed that this is the case, and reported that in SMG2 plenary it had already been pointed out that some concepts in UTRAN Architecture Description for RNTI need to be updated.

It was clarified that the connectionless RNSAP messages as identified in the last paragraph refer to e.g. Relocation Commit message.

See decisions after **Tdoc 82**.

TSGW3#1(99)082 'TTC/ARIB UTRAN Architecture draft specification' The section 9.3 containing the TTC/ARIB proposal on RNTI was presented by Takaaki Satoh of NTT DoCoMo.

<u>Discussion and decisions on RNTI (</u>**Tdocs 56, 76** <u>and</u> **82**<u>):</u>

There are three options: either to keep the original text, take the proposal from TTC/ARIB or to take the proposal from Nokia.

NTT DoCoMo agreed that Nokia proposal could be agreed, but they have concern about allocating a c-RNTI

to the UE every time when a new DCH is added (in case when there are already existing DCHs). It was clarified that the new c-RNTI is not visible to the UE as long as the UE does not enter RACH/FACH state. c-RNTI is the identity of the user in the DCCH in the RACH/FACH state.

It was clarified that with the Nokia proposal the RNTI is not related to the URA by any means, and the URA can be managed independently. This affects also the definition of URA, but the principles of the URA Update and Cell Update do dot need to be changed.

The difference between the currently agreed definition and the proposal from Nokia is that the terminology has changed and that the c-RNTI is no longer part of the s-RNTI. Conceptually c-RNTI maps to RNTI-short, and s-RNTI to RNTI-long.

After considering this over night and offline discussions, the proposal from Nokia was agreed with added clarifying statement that the c-RNTI is sent to the UE in case of Cell Update and channel type switching to RACH/FACH state. Also a note is added that the definition of a URA has to be revised.

Furthermore it was agreed to note that this issue needs to be in line with WG2. Also a liaison statement on this issue will be written to WG2. Jean-Marie Calmel form Nortel will draft the liaison (See discussion for **Tdoc 101** in Section 9).

Node B cascading: 80

TSGW3#1(99)080 'Closed loop/open loop at the Iub' was presented by Cecile Appert of France Telecom. The contribution proposes that the Iub transport layer implementation should allow Node Bs to be cascaded in open or closed loop configuration. It was clarified that the figures shown depict the physical configuration and not the logical architecture.

It was further discussed which layer should Node B have this cascading capability. It seemed appropriate that instead of talking about 'the transport layer implementation' it is more accurate to talk about the capabilities of the 'ALCAP'.

Nicolas Drevon of Alcatel mentioned that if the Node B cascading was intended to be done with AAL2 switching (i.e. with Q.AAL2 protocol), there may be a risk for having a too long set up delay when establishing a new bearer. T-Mobil asked how much could be this additional delay.

It was pointed out by the convenor that cascading is allowed already in the current description, even though it is not explicitly stated in any of the documents.

The proposal was discussed at length, but it could not be agreed how (e.g. at which layer) to include this as an explicit requirement in the standards, so the proposal was not agreed.

O&M requirements: 41 (this document was moved here from agenda item 8.6)

TSGW3#1(99)041 'UMTS Management Architecture and Requirement for a Fully Open Iub' was presented by Andrew De La Torre of Vodafone. He clarified that the document is submitted for information only. The first part of the document was skipped because it is not in the scope of this group, and presentation started form section 3.4 Iub Facility Components.

It was commented by Albert Yuhan of Omnipoint (convenor of TSG SA WG5, Network Management) that the O&M developers would like to know what are the items that should be 'operated and managed' in the UTRAN. The expertise for that is in this group. In his view the actual O&M mechanisms would be developed by the O&M experts in TSG SA WG5.

As a response to Nokia's question Andrew clarified that this proposal is in line with the architecture presented in the UTRAN Architecture Description. Two categories that were discussed before (See discussion for **Tdoc 79** in Section 4) map to Logical and Physical O&M as defined in the UTRAN Architecture Description. The first category maps to Logical O&M, and the second category maps to Physical O&M. However the concept of OMC-B is not included in the proposal as a separate entity (it would be in the OMC for the whole UTRAN).

Ericsson commented that this is the view of Vodafone and T-Mobil, but it has not been accepted in any standardisation organisation, and it should not be viewed as an output of SMG6/TMN5 AdHoc. Vodafone agreed that this is the case.

The document was noted. The convenor pointed out that in the future we need to agree what the function of O&M is in the UTRAN.

8.2 Signalling flows of UTRAN functions (spanning more than one interface)

General: 57, 85

TSGW3#1(99)057 'Modification proposals for 3GPP document containing UTRAN Signalling Examples' was presented by Kalle Ahmavaara of Nokia.

The comments are of editorial nature, and they were agreed to be given to the editor for realisation. It was clarified that some of the comments may not be valid any longer due to merging process and new progress in this meeting, and that this needs to be taken into account by the editor.

TSGW3#1(99)085 'Protocol Stacks for Distributed MAC' was presented by Kevin Hegerty of Lucent. It was clarified that the protocol models presented are in line with the L23 work in WG2. Upper Physical Layer exists in the model in L23 and it is used for macrodiversity combining and distribution in the SRNC. MAC-lc term is being introduced here, but the layer is existing in L23. It is to distinguish between the Common MAC and Lower Common MAC layers.

It was clarified that the purpose of the signalling flow document is to present the protocol stacks for information, but the RRC and MAC protocol termination points are actually specified in WG2 (L23). Kevin answered that nothing new in terms of termination points is proposed in this document.

Kalle Ahmavaara of Nokia asked why the protocol stacks need to be shown here because they are not visible for the signalling flows. Kevin answered that they expand many interfaces and therefore the appropriate place is in this document. The convenor answered that even more appropriate place would be the UTRAN Architecture description, in Chapter 11.

It was discussed that the terminology should be aligned between the groups (WG2 and WG3). Also it was pointed out that the WG2 discussion on MAC in the Node B is still ongoing, but in the documentation the termination in the RNC is mentioned. The scheduling for the FACH channel should be in the CRNC.

It was commented that in figure 6 of the document the Dchfp is shown directly through CRNC (DRNC) and that is not in line with the working assumption in this group. It was pointed out that it is important to keep the Dchfp in the Iur and Iub interface as similar as possible

It was agreed to add this as informative section to Chapter 11of UTRAN Architecture Description, in the beginning as a general chapter on protocol model, with the following modifications:

- General comments: The section is marked as informative, and the dotted arrows are removed from all the approved figures.

- Section 2 RACH Transport Channel: There is an outstanding issue related to MAC-lc, so a note is added to both figures stating that the existence of MAC-lc in Node B is FFS.

- Section 3 FACH Transport Channel: It should be clarified that FACH scheduling is a function of MAC-c. The MAC-lc should be removed from both figures and the text.

- Section 4 DCH Transport Channel: It was decided to show the physical layer as a single layer, and the "*PHY-upper*" is changed to just "*PHY*" in both figures. In figure 6 "*CRNC*" is changed to "*CRNC/DRNC*" and Dchfp termination in the CRNC/DRNC is shown explicitly with two solid boxes and a common dotted box labelled as "*PHY*" is drawn on top of that. Also a note is added stating that the Iub Dchfp and Iur Dchfp are identical.

It was also agreed that the figures in the Examples on Signalling Procedures document are modified so that only RRC, NBAP, RNSAP and RANAP are referred to and all other protocol layers are not shown.

RAB establishment/release: 47, 48, 60, 61.

TSGW3#1(99)047 'DCH-DCH Establishment: TDD-FDD Signalling Procedure Comparison' was presented by Massimo Dell'Acqua of Italtel. It clarifies the applicability of the existing text in this procedure to the two modes, TDD and FDD.

It was clarified that the complete list of parameters should be in the specification for the interfaces, and not with the signalling flow examples. The additions presented in the contribution were accepted as proposed.

TSGW3#1(99)047 'DCH-DCH Release: TDD-FDD Signalling Procedure Comparison' was presented by Massimo Dell'Acqua of Italtel. It clarifies the applicability of the existing text in this procedure to the two

modes, TDD and FDD.

In item 15 the document proposes that the DRNC would release the Iur and Iub, but Kalle Ahmavaara from Nokia noted that the Iur should be released by the SRNC. It was agreed to modify the section so that the SRNC initiates the release of Iur and the DRNC initiates the release of Iub.

The additions presented in the contribution were accepted as modified.

TSGW3#1(99)060 'UTRAN Signalling Procedure: RAB Establishment (DCH to DCH) – Unsynchronised' was presented by Fabio Longoni of Nokia. It was clarified that this contribution is proposing procedure that was rejected in the previous meeting, but it is now proposed again because it has been accepted in L23 group.

Takaaki Satoh of DoCoMo proposed to change the name of this procedure, and effectively separate it from the existing procedure. This was also acceptable for Nokia, so it was agreed. The message names are now "*Radio Link Reconfiguration*" and "*Radio Link Reconfiguration Response*".

The proposed addition of the procedure was agreed as modified.

The new procedure also needs to be added to RNSAP and NBAP specifications. The editors of the Iur and Iub descriptions were mandated to add these procedures (with short description of what procedure is in question). Nokia also volunteered to provide some detailed text for the procedures, but this needs to be handled as a separate contribution.

The convenor reminded that contributions bringing new procedures for the Signalling Flows should also include the related interface procedures at the same time.

It was also agreed that the box "*Apply new transport format set*" in figures 7.2.6.1 and 7.2.7.1 need to be extended so that it is between UE and SRNC, and the title should indicate "*synchronised*" to separate it from the newly approved unsynchronised case.

TSGW3#1(99)061 'UTRAN Signalling Procedure: RAB Release (DCH to DCH) – Unsynchronised' was presented by Fabio Longoni of Nokia. This is the release case utilising the reconfiguration procedure that was discussed in **Tdoc 60**.

The proposal was agreed with the modifications that the box "*Apply new transport format set*" needs to be added between steps 2 and 3, and it is from UE to the SRNC. Also the numbering of messages needs to be corrected.

It was also clarified that the same unsynchronised procedures as were agreed for the establishment case are used also for the release, so the message names in Iub and Iur are "*Radio Link Reconfiguration*" and "*Radio Link Reconfiguration Response*".

RRC connection est/release: 50

TSGW3#1(99)050 'RRC Connection Establishment – DCH Establishment: TDD-FDD Signalling Procedure Comparison' was presented by Massimo Dell'Acqua of Italtel. It clarifies the applicability of the existing text in this procedure to the two modes, TDD and FDD.

The proposal was agreed without modification.

CCH mobility: 45, 54, 55.

TSGW3#1(99)045 'Hard Handover for UE in RACH/FACH state' was presented by Michael Schopp of Siemens. The procedure shows a Hard handover case when the Iur interface is not utilised at all.

The usage of different identifiers for this procedure was discussed at length. It was commented that the RNTI-long is an internal identifier to the UTRAN, and it may not have meaning to the CN.

It was clarified that Box 4 "*retrieve UE-context from source RNC*" indicates retrieval of e.g. Authentication information, ciphering, and RRC connections relations via some transport mechanism transparently through the CN because there is no Iur available. The details of how that is done were not included.

Kalle Ahmavaara commented that UTRAN level mobility handling is only possible if at least part of Iur functionality is supported. And if not, then only CN level mobility is available.

It was discussed that if we remove possibility to perform HO without Iur, then there is no need to introduce new forward type of HO in the Iu Interface (something like the proposal from Siemens). On the other hand, if at least part of the Iur C-plane is supported then there is no need for the new CN HO type. The current definition of Iur is such that the Iur is either fully supported (C-Plane and U-Plane (CCH still optional)) or it is

not, e.g. it is not stated anywhere that only C-Plane Iur is possible.

The possibility of refining the definition so that C-Plane Iur only was discussed. In this case it should be discussed which procedures in the C-Plane only type of Iur should be supported. This was supported also by Siemens, and they would withdraw their forward type of handover if signalling only Iur is possible.

It was generally understood that this type of functionality should be supported by the Iur interface, and it seemed generally agreeable that C-Plane only type of Iur should be supported.

The details of this would need to be put on a written proposal before final agreement is made. Written contributions on this issue are invited. Proposal in **Tdoc 45** was not agreed at this time.

TSGW3#1(99)054 'Cell Update Signalling Procedure Examples' was presented by Kalle Ahmavaara of Nokia. It is proposed that Intra RNS Cell Update is not documented by WG3 (solely WG2 issue) and that Inter RNS Cell Update is added as proposed.

It was proposed by the convenor that the section '7.2.13.1 Intra RNS Cell Update' of the Examples on Signalling Procedures is kept in the document, but it only contains a note that it is radio interface related procedure only, and it is specified in WG2 documents. This was agreed.

It was clarified that the contribution does not take any position on whether the SRNC identity is contained in the RRC message or at MAC layer. This is not defined in the L23 work, but this contribution works in both cases. It was commented that the location of this information affects whether the RRC message is decoded at the DRNC or not. It was agreed that a note should be added that this issue should be studied.

It was also agreed that Figure 8 in the Examples on Signalling Procedures should show "*CRNC*" and not "*SRNC*".

It was proposed by Kalle Ahmavaara to remove the RRC from message 1 in figure 2 of the contribution. Per Willars added that also in message 2 The "*RRC message*" should be replaced with "*Cell Update message*". This could not be agreed.

It was agreed to include the Inter RNS Cell Update procedure with the following modifications: The message #1 is removed all together and only a box is shown in target RNC to indicate that "*CCCH message received, target RNC Id decoded*". Also a note is added indicating that whether this CCCH message is RRC or MAC PDU FFS. Also in message 2 The "*RRC message*" is replaced with "*CCCH message*".

In addition, a liaison will be drafted to WG2 (by Kalle Ahmavaara of Nokia) indicating that from WG3 point of view the DRNC must be able to decode the SRNC identity from the CCCH Cell Update message (See discussion for **Tdoc 100** in Section 9).

TSGW3#1(99)055 'URA Update Signalling Procedure Examples' was presented by Kalle Ahmavaara of Nokia. The proposal is analogous to the one presented for Cell Update in **Tdoc 54**.

The contribution was agreed with the same modification as in Cell Update Tdoc 54 (Intra-RNS section kept with a note, and Inter RNS case modified). One additional comment is that message 2 in figure 2 should be "*URA Update Indication*" and not "*Cell Update Indication*".

SRNC relocation/ Hard handover: 28, 29, 62, 64, 77

TSGW3#1(99)028 'Suspend / Resume during SRNS relocation' was presented by Didier Gonze of Alcatel. The proposal is to suspend L2 during part of SRNS relocation, and resume afterwards.

It was asked whether this is need in all cases of SRNS relocation. It was clarified that this is the case. Nokia commented that Suspend / Resume as a mandatory part of the SRNC Relocation procedure would make CCH in the Iur mandatory, which should not be the case, and supposedly it is not the intention of the proposal.

It was further commented by Siemens that the Suspend / Resume and SRNC Relocation procedures should be viewed completely separate of each other. The convenor proposed that the SRNC Relocation procedure with Suspend / Resume could be included as one example in the Examples on Signalling Procedures.

It should be indicated in the SRNC Relocation Commit whether the control plane has been suspended or not, so that the target knows whether to resume or not.

It was decided to present the related documents before any decision. See **Tdoc 62** below.

TSGW3#1(99)062 'Lossless SRNC Relocation Procedure' was presented by Kalle Ahmavaara of Nokia. This contribution proposes not to explicitly indicate the suspending of the L2 during SRNS Relocation, but to

transfer the RLC buffers and 'RLC protocol status' over the Iur from source to target.

It was clarified that if PDUs are sent during the 'implicit suspend' they will be negatively acknowledged in the radio interface. It was asked what happens in the radio interface when the negative acknowledgements are given. It was clarified that it behaves as it is designed. Interdigital commented that the design allows some retransmissions, but not for very long. Nokia clarified, that the time requirement is very short (the time required by sending and receiving SRNC Relocation Commit in the Iur).

It was discussed that by giving negative acknowledgements in the radio interface it implicitly means suspending the traffic. Nokia clarified that by doing this the 'implicit suspending' can also be applied to U-Plane, and not only for C-Plane as in the Alcatel proposal.

The c-plane part was discussed.

Jean-Marie Calmel of Nortel commented that radio resources are wasted in retransmission. Fabio Longoni commented that the break is very short an only 1 retransmission is needed, and on the other hand for the explicit Suspend / Resume you have to send at least two RRC messages over the radio Interface, so the load is even higher.

Björn Ehrstedt of Ericsson asked which CN node needs loss-less handover. Answer was that it depends on the bearer. Ericsson commented that for some services losing 1 RLC PDU might not be very critical.

Nicola Drevon from Alcatel commented that the issues is, where do we stop DL transmission, in the CN or the RNC.

It seemed that Nokia and Alcatel need some offline discussion as they have competing, but non exclusive proposals.

Neither of the proposals were agreed at this time. The questions we have will be summarised into a liaison statement to TSG SA WG2. It was agreed to be drafted jointly by Nicolas Drevon of Alcatel and Kalle Ahmavaara of Nokia (See discussion for **Tdoc 105** in Section 9).

TSGW3#1(99)029 'Point to multipoint configuration in the CN' was presented by Didier Gonze of Alcatel.

Alcatel clarified that the idea is to avoid splitting combining function in the CN. Nokia commented the proposal in the contribution seems to be different as it proposes ARQ between the UE and the CN.

Alcatel clarified that this is the case, and that the contribution had been written in response to a Nokia proposal in the SMG2 ARC EG (it was resubmitted to this meeting), but since that is not discussed in this group, there is no need to discuss this proposal here either.

The document was noted.

TSGW3#1(99)064 'Hard Handover and SRNS relocation inconsistencies in UMTS ZZ.02' was presented by Nicolas Drevon of Alcatel.

Nokia commented that the corrections had already been addressed by another contributions that have been discussed.

The proposals were agreed.

In addition it was noted that in section 7.2.15.2 of the Examples on Signalling Procedures, message number 9 in the text reads "*SRNC Relocation Command*", but it should be corrected to "*SRNC Relocation Commit*".

TSGW3#1(99)077 'SRNC Relocation (UE Connected to combined CN Element)' was presented by Seshaiah Ponnekanti of Telecom Modus.

Kalle Ahmavaara asked whether it is meant to address Single CN node (as stated during the presentation) or Integrated CN node (as stated in the contribution). It was clarified to mean Single CN node.

It was clarified that the working assumption in SMG12 is that there are two logically separate flows over the Iu reference point, when the UE is connected to two domains, even if the CN nodes are integrated to one physical node.

The convenor clarified that the Single CN node case is a subset of the Two CN node case, and recommended that such simplified cases should not be shown in the document. It was counter argued that there are already sections in the document for this case. Motorola proposed that these sections should be removed. This was agreed, and as a consequence also existing section 7.2.12.2.2.1. (Hard Handover for Single CN node) is removed.

The convenor Per Willars clarified that based on the liaison statement form SMG12 stating that the release 99 of the CN will include two logically separate CN nodes (**Tdoc 96**), the work of this group should concentrate only on that architecture, at least during this year.

8.3   Iu interface

Iu UP: 11, 21, 22, 42

TSGW3#1(99)011 'Iu Interface User Plane for the IP Domain' was presented by Björn Ehrstedt of Ericsson. The contribution proposes to use common L2 resources for Iu u-plane towards IP domain, and that those common resources would consist of one or several AAL5 PVCs. Also a more detailed protocol stack with GTP-U/UDP/IP on top of AAL5 is presented for information.

Motorola asked if the proposal means that multiple users are multiplexed on one PVC. It was answered that this is the case. It was asked if there is only one or several IP addresses for the SGSN and the RNC. Ericsson clarified that there is no such restriction.

Nicolas Drevon of Alcatel commented that SMG12 has made a decision (in their Tdoc 258) that is almost identical to the proposed statements, but there is an addition that also SVC per user flow is a possible configuration.

It was commented by BT that it may be problematic if two groups make decisions on the same issue.

It was asked by Nokia whether we should follow the decisions of SMG12 or to make our own decisions. The convenor replied that if SMG12 presents some options, then it is possible to narrow down the options in this group.

It was asked whether bridging at the GTP or IP level makes a difference from the Iu point of view. It was clarified that from the Iu point of view these solutions are identical.

It was decided to present the U-Plane part of **Tdoc 042** before detailed discussion and decisions.

TSGW3#1(99)042 'A fully IP based Iu interface for the packet domain' was presented by Magnus Aldén of Telia. It proposes to use IP for both user and control plane of Iu for packet domain.

The document was discussed from the user plane point of view.

It was clarified that the proposal is for packet domain only. It was asked if different connections for different QoS classes is allowed. Magnus answered that it is not part of the proposal, and the document does not go to that level of detail.

Decisions on **Tdoc 011** and U-Plane part of **Tdoc 042**:

The U-Plane part of the Telia proposal (**Tdoc 042**) and the two bullets form Ericsson's contribution (**Tdoc 011**) were accepted.

Also a liaison to TSG SA WG2 will be drafted by Björn with help from Magnus. The liaison should state the decision taken, and to explain that we are aware that also SMG12 has discussed this issue and that to facilitate the progress and to keep the time plan TSG RAN WG3 decision taken does not include the possibility to use switched VC (See discussion for **Tdoc 103** in Section 9).

The issue was again discussed with the liaison statement. It was then decided that this is a working assumption. NTT DoCoMo also pointed out that they are against taking this working assumption.

TSGW3#1(99)021 'AAL2/AAL5 and handling of AAL2 Connections on Iu' was presented by Björn Ehrstedt of Ericsson. The usage of AAL2 had been discussed in SMG2 ARC EG, and two possible ways had been identified: AAL2/RAB establishment with Q.AAL2, or AAL2/RAB with semi-permanent connections selected by RANAP. This contributions proposes that Q.AAL2 is selected as the standard protocol for establishing and releasing AAL2 connections in Iu.

Ericsson pointed out that the Q.AAL2 facilitates the handling of AAL2 connections in the Iu. It was said that there is no AAL2 switching is available in the first MSC implementations. It was stated that the solution selected now must also be usable in future phases.

The availability of Q.AAL2 was discussed. Ericsson commented that the progress in ITU is within the schedule, and the protocol should be ready in time.

Nicolas Drevon of Alcatel pointed out that the transcoder (TC) location affects this. Björn Ehrstedt of Ericsson commented that it is not necessarily the case.

RANAP Independence of transport was discussed. If previously configured connections are used, can RANAP be completely transport independent? Nicolas pointed out that the previously configured AAL2 connections would only be selected by RANAP.

The proposal is to discuss the handling of AAL2 regardless of the TC location. If AAL2 is no longer a viable transport option, then the proposal is not valid. Clearly it was agreed that if the TC is in the CN, then AAL2 is used. Siemens noted that if TC is in the UTRAN, then AAL1 would be a natural solution. Ericsson commented that AAL2 could still be used.

It was agreed that Q.AAL2 is selected as the standard protocol for establishing and releasing AAL2 connections in Iu. This is provided that AAL2 is used in the first place (Currently this is the case, AAL2 and AAL5 are included in the documentation). In accordance to the agreement, proposals 1-3 from **Tdoc 21** contribution are agreed.

Nicolas Drevon stated that Alcatel does not support the decision for the first implementation phases.

It was also agreed that if the TC is in the CN, then AAL2 is used towards the CS domain.

Answer to the liaison statement from SMG12 (**Tdoc 95**, see section 4) will be drafted by Björn Ehrstedt of Ericsson (**Tdoc 102**, see section 9). The liaison statement should point out that:

- Assuming the TC is in the CN AAL2 is used towards CS domain.

- Q.AAL2 is used as a standard way to setup AAL2 connections in Iu

- There is no concern in the availability of Q.AAL2 in time, and furthermore we use Q.AAL2 in Iur and Iub interface.

TSGW3#1(99)022 'Signalling Bearer for AAL Type 2 Signalling Protocol in Iu' was presented by Björn Ehrstedt of Ericsson. This contribution proposes the signalling bearer to the just approved Q.AAL2 Signalling.

It was commented that a clarification needs to be added that this only applies to the CS domain

It will be added to the proposal 3 that this is used for Q.AAL2.

Cheng Hock of NEC pointed out that also a signalling converter layer is needed between Q.AAL2 and MTP3B. This is depicted in the protocol stack from TTC/ARIB (e.g. as shown in **Tdoc 67**). It is available in document Q.SBC MTP, and although it is not considered as part of Q.AAL, it is being standardised in the same organisation and time plan as Q.AAL2

Ericsson will make the Signalling Bearer Converter available to the e-mail reflector.

The proposal was agreed. Furthermore it was agreed that the signalling bearer converter needs to be added to the corresponding sections of Iub and Iur Interfaces. For Iub the reference is Q.21MT (to be checked).

TSGW3#1(99)042 'A fully IP based Iu interface for the packet domain' This contribution was discussed again from the c-plane aspect. It proposes TCP/IP/AAL5 as the Signalling Bearer for RANAP.

Nokia and Siemens pointed out their differing view, which is that SS7/SAAL should be used. Nortel commented that the u-plane and c-plane should use the same transport, and there is agreement to use IP in the PS u-plane. Nokia commented that the advantage of having just one type of c-plane 'port' from the RNC for both domains is a bigger advantage than having c-plane and u-plane in the same transport, because they are logically independent of each other, whereas the goal for the c-plane is that it should be as identical as possible for both domains. Motorola commented that they see no reason why SS7 should be used in the IP domain, as little as they see reason to use TCP/IP in the CS domain.

A possible adaptation layer between RANAP and TCP was discussed, but no conclusion was reached.

It was agreed that RANAP should access the same general set of primitives even if the signalling bearer is different. The list of general service primitives for the signalling bearer that is currently in the documentation was agreed by everyone else except Alcatel.

The issue was discussed at length with strong statements made in both directions.

Motorola proposed to include the proposed protocol stack as the another alternative for PS domain with

adaptation layer added. An indicative voting (one hand per company was considered) showed that there was not more support to include this as an option under study. More companies supported not to include it an concentrate on development of SS7 based solution. However there was not a big difference.

Based on this it was agreed not to include any new text or figures to the baseline document.

RANAP/overload: 34

TSGW3#1(99)034 'Iu interface Protocol Layer Specification for Radio Network Control Plane : Overload Control Algorithm' was presented by Jean-Marie Calmel of Nortel. This contribution proposes an algorithm for handling the throughput of all different types of information flow (signalling or user data) in the Iu Interface.

It was clarified that this contribution only shows the principle, which is not dependent on the type of the bearer, and details for any bearer type are not included. The principle is to be able to signal the available throughput (to be defined for each transport bearer type independently) from UTRAN to the CN and the CN must conform to that. The available throughput is indicated in bit/second or procedure/second for each transport bearer. The proposal is to apply for both c-plane and u-plane it applies for the transport bearer and not just a RAB.

Nokia commented that flow control is clearly needed in the u-plane towards the IP Domain. Ericsson commented that other means are available than flow control.

Siemens commented that Overload control and Flow control are not exclusive functions.

Ericsson commented that the throughput must be specified so that it has the same meaning for both ends of the interface. There may be difficulty in specifying the throughput in such a way.

It was clarified that the reporting of the throughput is implementation dependent, and the procedure can be used as the currently defined overload procedure, by normally reporting throughput of 100% and then at overload situation report throughput of 0%. The advantage of the proposal is that a throughput other than "all" or "none" can also be reported.

Jean-Marie also clarified that the u-plane reporting would not be in the C-Plane, but with the flows in the u-plane, e.g. some in-band protocol.

Per Willars of Ericsson commented that in the u-plane this is closely related to the QoS of the bearer, and for guaranteed bearers this is not needed. He also clarified that the objective is to handle the buffers in the UTRAN, and the other options are credit or window based solutions.

It was agreed to discuss c-plane and u-plane parts separately.

C-plane discussion and decisions:

Atte Länsisalmi of Nokia commented that because the proposal is at the level of a principle, it may lack some information compared to the currently agreed mechanism for Overflow.

It was agreed not to include this mechanism for the c-plane.

U-Plane discussion and decisions:

It was pointed out by Nobutaka Ishikawa of DoCoMo that if there is no flow control in the Gn interface, then flow control is not needed in the Iu Interface either, because the packets will be lost already in the SGSN. Also they commented that if there is user data compression in the SGSN, then there may also be need for flow control.

It had already been pointed out that there are other alternatives like window size and credit based solutions.

It was agreed to add a section to u-plane part of Iu Interface titled: "*Flow control and/or buffer management*". This section will only contain a note that the details are FFS.

RANAP/classmark: 19

TSGW3#1(99)019 'Classmark Update RANAP procedure' was presented by Göran Rune of Ericsson. This procedure is used during the SRNC Relocation procedure to make sure that the target RNC gets the new classmark if the UE changes it during the SRNC Relocation (which is not visible to the UE).

It was clarified that this message would not exclude or replace the suspend and resume functionality that was discussed earlier.

This procedure is used to transfer the classmark information from the source RNC to the target RNC in the case when the classmark has changed after the SRNC Relocation procedure was initiated. Originally this information is in the SRNC Relocation messages. It was clarified that the message not introduced to the Iur so that the procedure would also be applicable for the case when Iur is not available.

The purpose of this procedure is to fill the gap between the initiation of SRNC Relocation and the possible suspend of L2.

T-Mobil asked why it is important to address this short gap. It was answered by Ericsson that the classmark may change when the UE is connected to car set, and the external power is changed, which may happen any time even during a call, and the purpose that the inconsistency in the understanding of what the classmark is between the UE and the RNC.

It was clarified by Ericsson that the classmark may change during the call in GSM and also the TSG RAN WG2 has addressed this case.

The contribution was noted and not agreed at this time.

RANAP/release: 17, 18, 52

Documents **Tdoc 17** and **53** were handled together.

TSGW3#1(99)017 'Iu Release RANAP Procedure' was presented by Björn Ehrstedt of Ericsson. The proposed procedure is used to tear down a complete Iu connection after or prior RAB Assignment.

TSGW3#1(99)052 'Iu Resource Release' was not presented because Brendan Mc Williams of Vodafone stated that Vodafone agrees to support the Ericsson proposal.

It was agreed to include the procedure from **Tdoc 17** in the Iu document with the modification that "*SCCP connection*" is changed to "*Iu Connection*".

TSGW3#1(99)018 'Bearer Release RANAP procedure' was presented by Björn Ehrstedt of Ericsson. This contribution proposes to separate the bearer release case from the current 'RAB Assignment' procedure to an independent Bearer Release RANAP procedure.

Ericsson clarified in response to question from Nortel that the procedure includes the possibility for pre-emption but any other type of bearer negotiation is viewed to be part of Non Access Stratum.

The current combined procedure implies that UTRAN has the possibility to select which bearers to release and which to keep, and that the Ericsson proposal this functionality is in the CN.

It was clarified that pre-emption means that a bearer may have indication that it may be pre-empted if there is a new bearer with a higher priority

Much due to some open questions there was not enough support for this procedure at this time and it was not accepted. It was noted, however, that it is also part of the study item between ETSI and TTC/ARIB (Iu/5).

RANAP/SRNC relocation/hard handover: 30, 31, 64

There was no time to handle these documents.

8.4   Iur interface

General: 37, 38

There was no time to handle these documents.

CCH on Iur: 33, 44, 81

There was no time to handle these documents.

RNSAP URA/cell update: 59

There was no time to handle these documents.

8.5   Iub interface

General: 35, 36

There was no time to handle these documents.

Iur/Iub DCH frame protocol: 20, 58

There was no time to handle these documents.

8.6 O&M Requirements. 41

There was no time to handle these documents.

9 OUTGOING DOCUMENTS & LIAISONS

All liaisons drafted during the meeting were agreed to be sent out, some with modifications that will be done by the editors. They were reviewed as follows:

TSGW3#1(99)098 'Proposed Reply to Liaison Statement on UMTS Simultaneous Mode' was approved with the modifications that the source changed is changed to TSG RAN WG3, word "*DTAP*" is changed to "*Non Access Stratum*", and words "*Document for Approval*" are removed.

TSGW3#1(99)100 'Draft Liaison Statement for TSG RAN WG2 Regarding Inter RNS Cell/URA update procedures" was approved with the modification that fields "*From: TSG RAN WG3*" and "*To: TSG RAN WG2*" are added to the title.

TSGW3#1(99)101 'Definition and usage of RNTI, LS from TSG-RAN WG3' was approved without modification.

TSGW3#1(99)102 'LS on Iu user plane towards the CN PSTN/ISDN domain' was approved without modification.

TSGW3#1(99)103 'LS on Iu user plane towards the CN IP domain' was discussed. NTT DoCoMo pointed out that they have another document that is in relation to this item.

TSGW3#1(99)104 'User Plane Protocol Stack for the IP Domain over Iu Interface' was presented shortly by Takashi Koshimizu. This document is addressing the concern that the decision done in this group is not in line with the decision in the SMG12, i.e. the possibility to use AAL5 SVC is not included in the decision done here, but it is in SMG12 documentation.

The decision taken earlier was not changed, but the following modifications were agreed to **Tdoc 103**:

- The statement on top of the two bullets was modified to read: "*In order to avoid options and facilitate progress for UMTS Release 99, the working assumption of RAN WG3 is the following:*"

- A statement is added at the end stating that RAN WG3 would like to receive comments if this is in line with TSG SA WG2 current requirements on Iu.

TSGW3#1(99)105 'Liaison Statement on reliability during SRNS relocation procedure' was presented by Nicolas Drevon of Alcatel. It was agreed with modification that in the last sentence was modified to read: "*TSG RAN WG3 would like TSG SA WG2 to give their opinion on the need for lossless SRNS relocation and if needed on the solution that should be adopted*".

TSGW3#1(99)088 'Response to SMG6/TMN5 Liaison Regarding Iub AAL2 Protocol' was presented by Andrew De La Torre of Vodafone. It was agreed with modification that TSG SA WG5 was added to CC list.

10 ANY OTHER BUSINESS

The Iub O&M responsibility was discussed. Clearly NBAP is within the scope of this group, but the O&M is not clear. It was proposed that an Ad Hoc on O&M responsibility would be held. February 22 was proposed as a date for the AdHoc. This was agreed. Also it was agreed that the meeting will be hosted by Italtel, and Andrew De La Torre from Vodafone will be responsible for this AdHoc. Furthermore the output may be sent directly to TSG RAN meeting. It will be an AdHoc from this group, but also relevant people e.g. from TSG SA WG5 should be invited.

ANNEX A: 3GPP TSG RAN WG3; Document Register for meeting #1

#	Title	Source
1	Draft Agenda	Convenor
2	<not used>	
3	<not used>	
4	<not used>	
5	<not used>	
6	<not used>	
7	<not used>	
8	Proposal of Specification Structure for WG3	Ericsson
9	Proposal for Work Plan for WG3	Ericsson
10	Proposal of work procedures	Ericsson
11	Iu Interface User Plane for the IP Domain	Ericsson
12	<not used>	
13	Admission and Congestion Control Functions	Ericsson
14	Functional Split of Admission Control	Ericsson
15	Functional Split of DL Inner Loop Power Control Function	Ericsson
16	CN Discriminator for connection of CN-UE peer entities	Ericsson
17	Iu Release RANAP procedure	Ericsson
18	Bearer Release RANAP procedure	Ericsson
19	Classmark Update RANAP procedure	Ericsson
20	Quality Indicators in Dedicated Channel Frame Protocol	Ericsson
21	AAL2/AAL5 and Handling of AAL2 Connections on Iu	Ericsson
22	Signalling Bearer for AAL Type 2 Signalling Protocol on Iu	Ericsson
23	<not used>	
24	<not used>	
25	<not used>	
26	<not used>	
27	<not used>	
28	Suspend / Resume during SRNS relocation	Alcatel
29	Point to multipoint configuration in the CN	Alcatel
30	Proposed new presentation for Iu RANAP procedure: Serving RNS relocation	Nokia
31	Proposed new presentation for Iu RANAP procedure: Inter RNS hard handover	Nokia
32	UMTS ZZ.12 v0.1.0, Description of Iur Interface	ETSI SMG2 ARC EG
33	CCH Procedures over Iur	Nortel Networks
34	Iu interface Protocol Layer Specification for Radio Network Control Plane : Overload Control Algorithm	Nortel Networks
35	Iub interface Capability : splitting of Radio Network functionality and transport Network functionality	Nortel Networks
36	Iub interface Protocol Structure : splitting of Radio Network functionality and Transport Network functionality	Nortel Networks
37	Iur interface Protocol Structure : splitting of Radio Network functionality and Transport Network functionality	Nortel Networks
38	<not used>	
39	UMTS ZZ.02 v0.1.0 (January 99) UTRAN Functions, Examples on Signalling Procedures	ETSI SMG2 ARC EG
40	UMTS ZZ.01 v0.1.0, UTRAN Architecture Description	ETSI SMG2 ARC EG
41	UMTS Management Architecture and Requirement for a Fully Open Iub	T-Mobil/ Vodafone
42	A fully IP based Iu interface for the packet domain	Telia
43	Power Control Functions, FDD – TDD alignment	Siemens, Italtel
44	Drawbacks of Common Channels on Iur	Siemens, Italtel
45	Hard Handover for a UE in RACH/FACH state	Siemens, Italtel

#	Title	Source
46	Requirements for Frame-Synchronisation in TDD	Siemens, Italtel
47	DCH-DCH Establishment: TDD-FDD Signalling Procedure Comparison	Siemens, Italtel
48	DCH-DCH Release: TDD-FDD Signalling Procedure Comparison	Siemens, Italtel
49	Maximum Branch Delay of user data in case of inter-RNC Soft Handover	Siemens, Italtel
50	RRC Connection Establishment – DCH Establishment: TDD-FDD Signalling Procedure Comparison	Siemens, Italtel
51	TDD/FDD Handover	Siemens, Italtel
52	Iu Resource Release	Vodafone
53	UMTS ZZ.11 v0.1.0, Description of Iu Interface	ETSI SMG2 ARC EG
54	Cell Update Signalling Procedure Examples	Nokia
55	URA Update Signalling Procedure Examples	Nokia
56	Definition and Usage of RNTI	Nokia
57	Modification proposals for 3GPP document containing UTRAN Signalling Examples	Nokia
58	Editing to ZZ.13, DCH Frame Protocol Description	Nokia
59	Modification to RNSAP URA/Cell Update Indication procedure	Nokia
60	UTRAN Signalling procedure: RAB Establishment (DCH to DCH) - Unsynchronised	Nokia
61	UTRAN Signalling procedure: RAB Release (DCH to DCH) – Unsynchronised	Nokia
62	Lossless SRNC Relocation Procedure	Nokia
63	Inter-RNS Handover	Alcatel
64	Hard Handover and SRNS relocation inconsistencies in UMTS ZZ.02	Alcatel
65	Iu Iur and Iub Work Items	Motorola
66	Iu Work Items	Motorola
67	Description of Iu Interface	TTC/ARIB
68	The comparison of UMTS-ZZ.11 and TTC/ARIB description of Iu	NEC Corporation
69	TTC/ARIB Iur draft Specification	TTC/ARIB
70	TTC/ARIB Iub draft Specification	TTC/ARIB
71	Comparison between Iur in ETSI and TTC/ARIB	NTT DoCoMo, NEC, Fujitsu, Panasonic, NTT, Mitsubishi Electronic, NTT Commware, Japan Telecom, Tu-Ka Phone Tokyo, Tu-Ka phone Kansai
72	Comparison between Iub in ETSI and TTC/ARIB	NTT DoCoMo, NEC, Fujitsu, Panasonic, NTT, Mitsubishi Electronic, NTT Commware, Japan Telecom, Tu-Ka Phone Tokyo, Tu-Ka phone Kansai
73	Manifestations of Handover & Streamlining (SRNS Relocation)	ETSI SMG2 ARC EG
74	ZZ.13 v1.0.0, Description of Iub Interface	ETSI SMG2 ARC EG
75	Notion of Work Package	Nortel Networks
76	Clarifications on RNTI	Telecom MODUS
77	SRNS Relocation (UE connected to combined CN element)	Telecom MODUS
78	Liaison regarding Iub AAL2 protocol	ETSI SMG6/TMN5 Ad-Hoc
79	Liaison statement to 3GPP TSG-RAN WG3 on the Importance of O&M and impact on UTRAN functionality	ETSI SMG6/TMN5 Ad-Hoc

#	Title	Source
80	Closed loop/open loop at the Iub	France Telecom
81	Common Channels on the Iur	Alcatel
82	TTC/ARIB UTRAN Architecture draft specification	TTC/ARIB
83	TTC/ARIB UTRAN Example of Procedures	TTC/ARIB
84	Comparison of the UTRAN Architecture Description in TTC/ARIB and ETSI	NTT DoCoMo, NEC, NTT, Fujitsu, Mitsubishi Electric, NTT Comware, Panasonic, Tu-ka Cellular Tokyo, Tu-ka Phone Kansai, and Japan Telecom
85	Protocol Stacks for Distributed MAC	Lucent Technologies
86	Corrections for R3-069 / R3-070 (Iur and Iub documents of TTC/ARIB)	TTC/ARIB
87	Iu Specifications, LS from SMG12	ETSI SMG12
88	Response to SMG6/TMN5 Liaison Regarding Iub AAL2 Protocol	Editor (Vodafone)
89	Liaison statement on UMTS developments	ETSI SMG12
90	Merged UTRAN Architecture Description	Editor (Nortel)
91	RAN Functions, Examples on Signalling Procedures	Editor (CSELT)
92	Merged "Description of Iu Interface" V 0.0.1	Editor (Nokia)
93	Description of Iur Interface	Editor (Ericsson)
94	Merged Description of Iub Interface	Editor (Lucent)
95	LS on the establishment if transport connections over the Iu	ETSI SMG12
96	Liaison Statement on UMTS Simultaneous Mode	ETSI SMG12
97	Common Channels over the Iur (revised version)	Alcatel
98	Proposed Reply to Liaison Statement on UMTS Simultaneous Mode	Editor (BT)
99	List of Study Items from the Baseline Documents Merging Process	Interim Secretary
100	Draft Liaison statement for TSG RAN WG2 Regarding Inter RNS Cell/URA update procedures	Editor (Nokia)
101	Definition and usage of RNTI, LS from TSG-RAN WG3	Editor (Nortel)
102	LS on Iu user plane towards the CN PSTN/ISDN domain	Editor (Ericsson)
103	LS on Iu user plane towards the CN IP domain	Editor (Ericsson)
104	User Plane Protocol Stack for the IP Domain over Iu Interface	NTT DoCoMo
105	Liaison Statement on reliability during SRNS relocation procedure	Editors (Alcatel/Nokia)
106	Liaison Statement: 3G RAN O&M issue	3GPP TSG-SA WG5

ANNEX B: 3GPP TSG RAN WG3 Attendance for meeting #1

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