

Agenda Item: 3

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**Draft Minutes of TSG RAN WG3 Meeting #4, 1st – 4th June 1999,
Warwick, UK**

As usual, this report is structured according to the agenda, and not according to the order of the discussion. In some cases, the agenda item under which a contribution was discovered is not clear, so the structure of the report is non-unique. The body of the report covers decisions and discussions held in plenary sessions, with the SWG reports included in Annex A and Annex B (see agenda item 23 for the discussion on these reports, and ratification of the SWG decisions).

1 Opening

The chairman, Per Willars (Ericsson) opened the meeting at 8:10.

2 Approval of the Agenda

TSGR3#4(99)432 'Draft Agenda' was presented by the chairman. Some agenda items were allocated to the SWGs, and delegates were reminded that there would be an O&M ad hoc session running in parallel with the plenary on Tuesday evening.

3 Approval of Minutes from last meeting

TSGR3#4(99)441 'Minutes of RAN WG3 #3' was presented by the secretary, Richard Townend (BT). He had received two comments indicating errors. The first was that the title for 25.442 in Annex A was incorrect – it should read "UTRAN Implementation Specific O&M Transport". Also, in section 20.1, the decision on placement of GTP-U should read "transport layer" not "radio network layer". With these two changes, the minutes were approved.

4 Letters/Reports of other groups

TSGR3#4(99)463 'Reply to the LS from R3 on possibility of multi-carrier cells' (from R2) was presented by the chairman. There were no comments, but it was noted that multi-carrier cells are not excluded.

TSGR3#4(99)543 'LS on common transport channel management over Iur' (from R2) was presented by the secretary. It is in line with our assumptions, so the document is noted.

TSGR3#4(99)529 'LS on agreed changes to 23.20 on flexible use of Iu' (from SA2) was presented by Jean-Marie Calmel (Nortel). The chairman referred the first change to the Iu SWG for study. BT asked whether the second addition was in line with our assumptions of how the distribution function works. Ericsson confirmed they thought that it was in line. This was later discussed in the Iu SWG.

TSGR3#4(99)524 ‘LS on Turbo Charger Feasibility Study’ (from SA2) was presented by Jean-Marie Calmel (Nortel). He proposed submission to the Iu SWG – this was agreed.

TSGR3#4(99)525 ‘LS on UMTS Evolution of GTP’ (from CN2) was presented by the chairman. Ericsson suggested that Iu SWG could discuss how to co-operate with CN2 on this issue. It is agreed that we agree with the principles proposed by CN2, i.e. that they will be responsible for GTP-U, but we will co-ordinate to ensure that our requirements are met.

TSGR3#4(99)526 ‘3GPP Call Set-up requirements for Circuit Switched Multimedia Telephony Service’ (from SA4) was presented by the secretary. It was commented that it appeared that the detail of the specification attachment was NAS related. The Iu SWG was asked to check this. Ericsson mentioned that RAB definition was a possible issue, and this should be discussed in the Iu SWG.

TSGR3#4(99)527 ‘Report on current status on terminal capabilities’ (from T2) was presented by the vice-chairman. The document was noted; no answer is needed.

TSGR3#4(99)528 ‘LS on ongoing work in T2 SWG5 – multi-mode terminals’ (from SA2) was presented by the chairman. He commented that it is not clear whether “multi-mode” meant TDD/FDD or GSM/UMTS. The chairman noted that terminal issues are primarily for the radio interface groups; the document was noted.

TSGR3#4(99)546 ‘LS on principles and procedures to ensure packet data retrieve at SRNS relocation’ (from SA2) was presented by Nicolas Drevon (Alcatel). It was commented by Lucent that SA2 had agreed this as a suggestion, not a binding decision. Lucent were concerned that SA2 had already done the stage 3 work, but it is incomplete, as some messages are not shown. This was generally agreed, and it was noted that this group had not yet decided whether such a procedure was even required. It was proposed that this should be discussed in the Iu SWG, but Nortel felt that the matter was relevant to the plenary as one option involved Iur. It was agreed that the Iu SWG would start the discussion on this.

TSGR3#4(99)547 ‘LS on QoS technical report’ (from SA2) was presented by Michael Roberts (Lucent). The document had been raised to v.1.0.0 although it was not 50% stable – this was done so as not to slow the work of TSG RAN. BT asked where the Iu Bearer Service parameters were being defined – it was clarified that this should be done in this group (Iu SWG in particular). In fact, the Iu bearer is provided by either the AAL2 connection and GTP-U tunnel; it is not clear whether this refers to the splitting of RAB QoS budget, or the QoS for the Iu transport. Siemens thought that the diagram was an abstraction to show the overall QoS architecture.

Later in the meeting, Nicolas Drevon (Alcatel) provided a further presentation on the QoS TR attached to the LS. Further discussion is noted under tdoc 578 (see 24 below).

TSGR3#4(99)548 ‘CN Architectures to be supported in R99’ (from SA2) was presented by Wolfgang Hultsch (Siemens). Ericsson stated that it is the first RANAP message that it used to set up the SCCP connection, so we need an MM distribution function on top of SCCP. One solution is to use two SCCP connections (e.g. use two SSNs for RANAP, or use the same CN domain discriminator as for RRC). It was asked whether we could agree the principle of using separate SCCP connections, with a discriminator included for initial messages. Nokia stated that a compromise was needed as the two architecture cases led to different ideal solutions – they support the discrimination at the SCCP connection setup. Siemens proposed the use of two SSNs, as this function is already defined. The Iu SWG will discuss and draft a response.

TSGR3#4(99)549 ‘LS on IP compression’ (from SA2) was presented by Michael Roberts (Lucent). The chairman asked whether new RABs would be needed. BT stated that it would be better to include this in the RAB parameters, but it is not included in the QoS report yet. The main impact for this group will be in the relocation transparent field. The document was noted.

TSGR3#4(99)550 ‘LS on Cell Broadcast in UMTS’ (from SA2) was presented by Michael Roberts (Lucent). Nortel asked for an explanation of how cell broadcast works in GSM – Lucent clarified that it is for non-addressable broadcast messages. The chairman commented that this represents a significant change to the architecture, as it had previously been expected to be in RANAP. The O&M aspects were

raised as it is likely to be realised by logical O&M between RNC and Node B. The alternative architecture involves the CBC connecting to the MSC or SGSN, and that node making requests over RANAP. Siemens asked where the mapping from geographical area to cell ids is done. T-Mobile suggested that operators would require Cell Broadcast over an area on both GSM and UMTS. Vodafone asked whether the proposal in 550 was to replace the RANAP solution or as an alternative. Nortel noted that whether to include this in RANAP had to depend on the decision as to whether the CBC is in the core network. It was proposed to draft a response to SA2, informing them of our current assumptions, and urging them to decide where the CBC resides in the architecture soon. Björn Ehrstedt (Ericsson) agreed to draft a response (tdoc 560).

TSGR3#4(99)551 'Reply to LS from R3 on support of DSCH on Iur' (from R2) was presented by Kalle Ahmavaara (Nokia). BT expressed concern about the separation of the CRNC=SRNC and CRNC≠SRNC cases. Nokia stated that you could use synchronised RL reconfiguration. Nortel explained that the switch of meaning for TFCI was always caused by an active set change, and not a reselection of DSCH cell. The chairman asked for clarification about the resource reservation, as it seems that the complexity depends on exactly what is reserved. Nokia noted that the reservation problem was not unique to DSCH, but applied to all common transport channels on Iur. The timing issue for TFIs is specific to DSCH. The chairman proposed answering that the activity is low (as we've had no contributions). Fabio Longoni (Nokia) agreed to draft a brief summary of alternatives to be discussed in the Iub/r SWG.

TSGR3#4(99)556 'Open Interfaces' (from GSM Association 3G Coordinator) was presented by Geoff Preston (Vodafone). The document was noted.

TSGR3#4(99)541 'LS from SA2 to CN2 on Manifestations of HO and SRNS Relocation' (from SA2) was presented by Richard Townend (BT) and noted.

TSGR3#4(99)542 'LS from SA2 to CN2 on Manifestations of HO and SRNS Relocation' (from SA2) was presented by Richard Townend (BT). The chairman stated that the answer to the first question (support for simultaneous mode) would be "yes". It was proposed to add a note to this effect in Manifestations – this was agreed. In section 5.3 of 25.831, it should be clarified that GSM BSS is not considered to be a UTRAN, but is treated in 5.7.

The document will be reviewed in WG3 (see 6.4), updated and then sent to CN2, SA2 and the workshop. Richard Townend will be responsible for this.

TSGR3#4(99)559 'Reply to LS on Hybrid ARQ' (from R2) was presented by the chairman. It was noted, and any work in this group would now be directed to the study items for future releases.

TSGR3#4(99)563 '25.303 v.2.1.0, UE Functions and Interlayer Procedures in Connected Mode' (from the editor [R2]) was presented by the chairman. The secretary will send the full document out on the reflector. It was proposed to take comments on our exploder, with a responsible person to collect them and send to WG2 – there were no volunteers, so comments will have to be made directly company by company to WG2. The general comment was that the radio interface specifications should be between UE and UTRAN, with UTRAN internal interfaces hidden. The chairman drafted a LS to be sent to all RAN groups on this matter (tdoc 577).

TSGR3#4(99)565 'Extract from 25.303' was presented by the chairman. It was clarified that this was effectively a second part of 563. NTT DoCoMo asked how this works in macrodiversity, in particular when one Node B cannot change configuration. They also suggested that it only covered the uplink case, and so was not complete. They do not want this for R99, as it will need new elementary procedures on Iub and Iur. It was proposed to send an answer stating that we do not see the need for the additional procedure, that only the uplink case is shown and that new messages would be required on Iub/r. It should also be stated that we have not studied the document in detail yet (tdoc 582).

5 Organisation of work

5.1 Work Plan and Organisation

TSGR3#4(99)429 ‘Workplan & Study Items’ was presented by Björn Ehrstedt (Ericsson). It was noted that the remark about SWGs starting in April could be removed. Also, that 25.442 should be included in 5.1 – this was agreed. It was then proposed to move the following specifications to the SWGs:

25.410, 25.420, 25.430 – these were kept at plenary.

25.414, 25.412 – it was agreed to move to the Iu SWG

25.422, 25.432, 25.424, 25.434, 25.426 – it was agreed to move to the Iub/r SWG

T-Mobil commented that the deadline for I3.05 had passed – it will be stabilised during this meeting (if possible).

5.2 Appointment of Representatives

Per Willars (Ericsson) volunteered to become SWG Chairman for the Iub/r SWG, until it becomes necessary to have SWG meetings between WG3 meetings. He was elected unopposed.

5.3 Future Meeting Dates & Hosting

Future dates are already set (until the end of 1999). Some hosts are still required – September 20-24, and December 6-10. Companies were urged to check whether they could host a meeting, especially the September meeting.

6 General UTRAN Architecture

6.1 UTRAN Architecture (25.401)

TSGR3#4(99)415 ‘UTRAN Overall Description v.1.0.2’ was presented by Jean-Marie Calmel (Nortel Networks). The document was approved.

TSGR3#4(99)504 ‘UTRAN Overall Description v.1.0.3’ was presented by Jean-Marie Calmel (Nortel Networks). The document proposed the inclusion of some abbreviations and a stability annex. The chairman proposed that all editors could use this format for their stability annex (although notes could be added below the table to state what is missing). The document was approved.

TSGR3#4(99)454 ‘Node Identification Principles over Iu and Iur’ was presented by Alain Maupin (Ericsson). Vodafone asked whether the same (or similar) principle can be used for Node B identification (would be important for Logical O&M). Nokia asked what the relationship between Routing Area Code and SGSN-ID would be, as the former is used in the CN to identify the signalling address for the SGSN. Ericsson clarified that the proposal looks at the Iu aspects, rather than the CN aspects, but this might need to be looked at further. T-Mobil asked why global ID was needed for RNC – it was clarified that this was needed for inter-PLMN handover/relocation; the scheme is designed to be future-proof, so as not to prevent this in the future. Alcatel asked why the MSC/SGSN ID were needed on Iur – Ericsson stated that this was needed so that the SRNC could initiate the relocation procedure. Nokia restated their concern that we were duplicating the RA/LA process, and that we should find a solution that was appropriate for all purposes. Ericsson stated that their proposal was twofold – firstly that we should not use signalling address in the protocols, and secondly the format for the identities (which are not incompatible with LA/RA anyway). **The first proposal was agreed.**

The chairman proposed that we should leave the format to SA2 or TSG CN. Ericsson agreed to this, and suggested that we should liaise this to SA2. Lucent suggested that we should send an LS directly to TSG CN WG2 (cc SA2). It was commented that the RNC id was in the scope of this group; Lucent asked whether any other IDs were needed for (e.g.) hard handover. Ericsson stated that there were some other information that was transferred transparently between RNCs – Lucent wanted to see this documented somewhere. Nokia suggested that we could propose that the CN group should consider whether to use these identities instead of LA/RA. Ericsson preferred that we asked them to consider the compatibility between the two concepts. Lucent asked whether this scheme introduced limitations in

the hard handover case where there was no Iur interface. Nokia said that this was a separate issue, and it is already partially solved, as the RNC should know about neighbour cells. Lucent explained that their comments had been about the case where there were two MSCs connected to an RNC.

The chairman asked where the identities would be specified, as they will be common for separate interfaces. Ericsson said that in GSM, 03.03 defined all GSM identities, but that this was probably out of scope. It was proposed to liaise this to SA2, and noted that we needed co-ordination in TSG-RAN anyway (on RNTI formats etc).

NEC asked whether this meant that the previous agreement (to add SGSN signalling address to the Uplink Transfer message) had been overturned – Ericsson noted that the agreement had been “FFS”.

Nortel asked why the identifiers were included in the RL SETUP/ADDITION RESPONSE/FAILURE messages – Ericsson stated that this would be part of the neighbour cell information. A further contribution is required.

Summary of Decisions

- It was agreed to have two ways to identify RNC – RNC Global ID and Target ID. Target ID is made of PLMN ID, CN-ID and RNC-ID, where CN-ID identifies either an MSC or SGSN.
- This shall be put into a LS, and sent to TSG CN, asking for guidance on the structure of the CN ID, and also asking about the status of the “03.03 replacement for UMTS” specification. Alain Maupin from Ericsson agreed to write a draft (tdoc 558).
- It was agreed to include the RNC-ID, MSC-ID and SGSN-ID in the UPLINK TRANSFER Message.
- It was NOT agreed that the RL SETUP RESPONSE, RL ADDITION RESPONSE, RL SETUP FAILURE and RL ADDITION FAILURE messages include the same three identifiers.

TSGR3#4(99)460 ‘Concept Proposal of RAB Sub-Flows’ was presented by Alain Maupin (Ericsson). Nokia asked whether adding and dropping of sub-flows is possible – Ericsson confirmed that this it is not. Alcatel asked for the inclusion of the word “together” in the first bullet, so that it reads “established and released *together* at the RAB establishment”. The sub-flows can be modified with a RAB reconfiguration. Discussion follows 509.

TSGR3#4(99)509 ‘Concept Proposal of Coordinated RABs’ was presented by Jean-Marie Calmel (Nortel). It was asked whether it would use transparent RLC – Nortel responded that there may be some RLC functions that might be useful, and also noted that the proposal is not specific for speech. Nokia asked about the radio application protocol multiplexing – Nortel responded that it was the Iu User Plane Protocol. Ericsson asked why we needed a separate multiplexing layer, as the Iu treats the sub-flows very similarly. Ericsson prefer to use a C-plane procedure to specify the frame structure at the establishment. The chairman asked how the delay constraints between co-ordinated RABs could be different; Nortel responded that at least for the AMR codec, the only difference would be the error rate, but for some other UEP services, there could be some other differences. The chairman noted that for AMR, you would use transparent RLC and pre-specify the allowed combinations of SDU sizes.

Discussion on 460 and 509.

Alcatel asked what the differences in attributes would be seen between the flows of a RAB, or between co-ordinated RABs. The chairman noted that the Ericsson proposal focusses on the AMR case, where we know SDU sizes and combinations in advance, and the Nortel case assumes that we don’t know this information. Ericsson think that you will need this information anyway to do construct the list of allowed TFCI.

The chairman summarised the two proposals as below:

	Ericsson	Nortel
Est/Rel together with some common parameters	RAB	Co-ordinated RAB
NAS data flow	RAB Sub flow	RAB

The chairman stated that, given the similarity between the two, we should introduce minimum confusion to other groups.

It was clarified that in the Nortel contribution any common parameters would be specified for each RAB in the co-ordinated set, rather than having a set of common parameters and a set of independent parameters (which could be the same or different on a case by case basis). Alcatel could only see complexity rather than applications. Ericsson had several examples of common parameters.

It was discussed whether the limitations of combinations of sub-flow characteristics would be different between the two schemes. Nokia said that we could have a flexible scheme constrained by rules, that we could then remove in future releases. Alcatel and Ericsson stated that the same effect could be achieved by moving parameters from common to sub-flow specific. The big issue is not the amount of RANAP signalling, but the complexity implications for UTRAN.

Alcatel proposed a combination of the two schemes where RABs consisting of sub-flows could be co-ordinated. Nokia asked whether there was any difference between the IDs required.

It is agreed that:

- There is a set of common parameters for all sub-flows (including a parameter indicating limitations in combinations of sub-flows)
- There is a different set of parameters for each sub-flow

There was some support for taking the Ericsson proposal for the principles as a working assumption. *It was agreed to include the principles in 25.401 (with a note as a working assumption) and also a LS will be sent to SA2 and CN1; Alain Maupin (Ericsson) will draft it (tdoc 562).*

TSGR3#4(99)480 ‘Classification of reconfiguration procedures’ was presented by Flavio Piolini (Italtel). Nokia asked how these definitions fit with our practice of defining elementary procedures. Italtel state that the elementary procedures must show whether it is possible to co-ordinate or synchronise (e.g. by having a commit phase). However, this contribution really refers to Examples on Signalling Procedures. Nokia point out that we use commit messages to synchronise changes between RNC and Node B, as well as to co-ordinate between Nodes B. Nokia state that we have two types of procedure in NBAP – synchronised and unsynchronised. They cannot see the benefit of having the additional classification.

The chairman summarised as below:

For RNSAP and NBAP we currently have (where CFN is Connection Frame Number):

	Req/Resp	Req/Resp/Commit
With CFN		✓
Without CFN	✓	

~~Do you need the other two cases? No examples were found!~~

Siemens commented that the contribution really concerned the UTRAN Examples on Signalling Procedures, not the elementary procedures. Nokia reminded delegates that the examples were only examples and not intended to show all possibilities.

The proposal was left, with specific examples to be discussed based on the other documents.

TSGR3#4(99)479 ‘Clarification of Binding ID usage’ was presented by Enrico Scarrone (CSELT). Ericsson would like to see transport layer address included in the diagram. The text should state that the address is that of the originating node. The AP-IDs are removed, as is the ALCAP ID. The text is modified to show the overall concept (i.e. binding applications rather than binding the application IDs). *With these changes, the document was accepted.*

6.2 Terminology (25.401)

No Contributions.

6.3 Synchronisation (25.401)

TSGR3#4(99)470 ‘Corrections to Synchronisation section in 25.401’ was presented by Beena Connors (Motorola). Flavio Piolini (Italtel) stated that the diagram and Td definitions come from the R1 documentation. The chairman stated that the range of Td must be defined somewhere as either 0:10msec or -5:+5msec – no-one was sure which was true. Motorola stated that they thought that if Td can be negative, then existing links would have to be adjusted to cope with an early link. Nokia and the chairman both felt that there was no big difference between the two ranges, and so we should ask what the range is, rather than specifying what it should be. Italtel stated that they thought that -5:+5 was the correct definition for Td, and R1 should be asked before we changed it. Nokia thought that we should not define the range on Td as it is carried transparently in NBAP. The chairman encouraged companies to use their R1 delegates to ensure that this gets defined in Layer 1.

Decisions on proposals:

- 1) reference 7 should be to 25.111.
- 2) accepted.
- 3) not accepted.
- 4) Agreed that the calculation of Tdj should not depend on Tdi. A note is added that it is equal to -Tm (rounded to 256 chip boundary).
- 5) agreed
- 6) agreed – LS to be drafted by Motorola.
- 7) agreed
- 8) postponed until Motorola had more information.

TSGR3#4(99)494 ‘Proposal for a new TS “UTRAN Synchronisation principles and delay requirements”’ was presented by Flavio Piolini (Italtel). Nortel commented that some high level information would need to be left in the UTRAN Overall Description. Italtel agreed. Ericsson asked whether it was necessary to include both synchronisation and delay requirements in the same specification. It was agreed that the delay requirements could remain in the UTRAN Overall Description. The proposal was modified such that section 3 was left in 25.401. Nokia were concerned that most of the current 9.3 was concerned largely with Layer 1 issues, while our specifications should only consider frame description with references to the Layer 1 specifications. Also, the timing alignment procedure should be described in the DCH frame protocol not here. Italtel wished to keep the information, especially if we have a separate specification. Concern was expressed about duplicating information between documents. The chairman will raise this at TSG-RAN, as it affects all working groups. It was decided not to move the information out of 25.401, but further contributions are invited.

6.4 Manifestations of Handover and SRNS Relocation (25.832)

TSGR3#4(99)428 ‘Manifestations of Handover and SRNS Relocation’ was presented by Richard Townsend (BT). The editor was asked to inform the chairman of the status before the TSG RAN meeting. Ericsson commented that the SRNS relocation example shows radio links in more than one RNS, while all of our procedures make the assumption that there are only links in the Target RNS. A note is added that for R99 it may only be possible to support the case where all links are within a single DRNS and that DRNS is the Target RNS. *With these changes, the document was approved (2.1.0).* It should be noted that further changes were made under tdoc 542, above – leading to version 2.1.1).

6.5 Delay Budget (ARC/3)

TSGR3#4(99)498 ‘Overall Delay Budget within the Access Stratum’ was presented by Massimo Del’Acqua (Italtel). The document was noted – the study item was left open.

6.6 Others

TSGR3#4(99)474 'Handling Abnormal Conditions in UTRAN Interfaces' was presented by Kalle Ahmavaara (Nokia). It is proposed to include transaction id for error handling, rather than parallel procedures. Nortel propose using a different name, as transaction ID is used for flow separation in GSM. They are also not happy with the error handling principles being designed around the idea of non-parallel procedures, as we would have to redesign the principles. Ericsson felt that the proposal changed the meaning of transaction ids as previously they were used for associating responses to requests in parallel procedures. Nokia think that for the parallel case, you would need two ids, one for initiation number within a transaction. Siemens suggested that you could use an "override/abort" bit in subsequent invocations. Nokia were concerned about the timing constraints that this application imposes (as a response and abort could cross, and would have the same transaction id). Nortel would prefer to see an abort message before an overriding invocation, or local repetition timers.

The chairman emphasised the importance of minimising system complexity as well as robustness. It was discussed whether parallelism in UTRAN complicated the UE – it seems that while the UE is likely to be a serial device, this does not stop the UTRAN being able to do parallel transactions. The chairman summarised that we must look at whether parallel transactions should be possible (and for which procedures), and separately consider how to handle abnormal procedures (several alternatives have been discussed above). *The proposal in section 2 was not accepted, but would be returned to after an off-line discussion. Section 3 is agreed as a principle (same as GSM Confusion procedure in 08.08 specification) – explicit contributions would be brought to include the messages into the AP specifications.* Lucent commented that it would be good to indicate where the error was detected. *Section 4 is related to counters that we've not agreed upon, so is not agreed.* Lucent asked whether a CS domain failure would cause a PS release – Nokia clarified that this was unintentional.

7 UTRAN Functions, Examples on Signalling Procedures

TSGR3#4(99)472 '25.931 v.1.0.1' was presented by Enrico Scarrone (CSELT). It was treated together with:

TSGR3#4(99)473 '25.932 v.1.0.2' which was also presented by Enrico.

473 is an editor's proposal based on 472, containing the less well specified decisions from the last meeting.

Alcatel commented that CCH had sometimes been replaced with Common Transport Channel and sometimes with RACH/FACH, which means that DSCH is excluded from some examples. However, the chairman stated that the procedures as shown do refer to the RACH/FACH example of Common Transport Channel, with contributions required for the DSCH cases which would need to be added. Alcatel asked for blank sections to be included to show the DCH+DSCH case – Nokia would rather see this on a case by case basis.

The last sentence of 9.13.2.2 parts 4 and 6 are removed.

Chapter 9.14.3 should be 9.15.3.

In 9.14.2, message 2 should be UL Signalling Transfer, 4 should be DL Signalling Transfer, 6 should be CRNTI Release Req, and 7 should be CRNTI Release Confirm.

Further comments were invited by email. Companies that get contributions accepted in Iub/r SWG should help the editor transfer them to this document.

The next version number should be 1.1.1. (showing the changes from this meeting).

TSGR3#4(99)481 'Inter RNS HHO via Iur' was withdrawn – with support for 531.

TSGR3#4(99)531 'Inter RNS HHO via Iur' was presented by James Miller (Interdigital). The contribution now proposes a new section. The text above the figure is modified to remove the clause "assuming that ...interface", and replacing it with a clarification about the handover being from one DRNC to another DRNC. With this modification, the proposal was accepted.

The chairman proposed removing 9.13.1.1 – *this proposal was not agreed.*

TSGR3#4(99)486 ‘Uncoordinated RAB Reconfiguration’ was presented by Flavio Piolini (Italtel). It is proposed for the case when the new TFCS is compatible with the old one. Nokia asked about the ALCAP bearer reconfiguration – with Q.AAL2, a new bearer must be established as QoS modification is not supported in CS1. It is asked whether we can just modify these boxes to show the bearer replacement; however even this is not clear – is there application signalling required? Ericsson commented that the RAB Reconfiguration procedure is FFS in the RANAP specification – this is the combination with other RAB assignment procedures study item. Alcatel asked whether the QoS parameters within the AAL2 connection could be modified using NBAP, but this would not work with an intermediate AAL2 switch. It is not generally agreed whether we need the RAB modification at all – this must be discussed in the Iu SWG.

The chairman stated that 487 must be left until after the discussions in the Iu SWG.

TSGR3#4(99)453 ‘Handover UMTS <-> GPRS’ was presented by Björn Erhstedt (Ericsson). Nortel asked whether the UE context retrieval was limited to CN or did it include some UTRAN aspects – Ericsson answered that it was limited to CN. Nokia asked how data loss was prevented – Ericsson stated that this was not included in the contribution, as the requirements were not clear. It was asked whether there was an RA update in step 2 of 2.1 – it was clarified that there might be, but it is not relevant to this discussion. Nokia asked for the addition of a note to say that if inter-system lossless handover was required, some modifications were foreseen. Alcatel asked for the title to be changed to “*Forward Handover...*”. They also asked that it be added to the note that “there may be a need for some signalling messages to synchronise the data transfer”. Lucent asked whether 2.3 should use the RRC handover command message or something else – Ericsson stated that they thought that it should use HO command. Lucent asked whether the UE needed to read system information or whether it is provided in the Handover command. It was agreed to remove the reference to “reads system information” to 2.2. With that modification, the note from Nokia and the change to the title the document was approved.

TSGR3#4(99)506 ‘Iur Transport Model for RACH/FACH’ was postponed until after an off-line debate.

TSGR3#4(99)576 ‘High Level Principles for Cell Mobility and URA Mobility Management over Iur’ was presented by Jean-Marie Calmel (Nortel). NTT DoCoMo commented that with respect to the 4th principle, the UE would not be able to receive the DCCH message – it was clarified that this was not the case. It was also confirmed that the cell update confirm was sent from SRNC to the UE, not from the CRNC. It was noted that the final decision on DCCH/CCCH is a R2 matter, but the roles of CRNC and SRNC and the Iur signalling mechanism are a R3 matter. Italtel expressed concern about the R2 decision – but all four contributing companies stated that their R2 delegates had been involved in the principle. A LS will be sent to R2, noting that the DCCH/CCCH part is the R3 assumption, and asking for confirmation on this point; Jean-Marie Calmel (Nortel) will draft the LS (tdoc 584). *The principles were agreed.* It was clarified that the principles did not make the establishment of common transport channels on Iur mandatory, as the confirm is sent from the new SRNC (if common transport channels on Iur are to be avoided). Further contributions aligned with the principles are expected.

TSGR3#4(99)506, TSGR3#4(99)515 were withdrawn, as they are superseded by tdoc 576.

TSGR3#4(99)519 ‘URA Update in DRNC without SRNC relocation’ was presented by Kalle Ahmavaara (Nokia). DoCoMo commented that the final paragraph should be removed – *this was agreed.* It was clarified that in this example, no C-RNTI was allocated, so no C-RNTI Reallocation Complete signal is needed. Alcatel could not see why the C-RNTI was allocated, as this is not needed for URA update, and asked whether the procedure used SCCP CO or CL mode. Nokia stated that the CRNC did not know whether the message was a cell or ura update, and so the messages would have to be sent using the CL mode of SCCP. Italtel asked why the RRC protocol was not shown in the figure – Nokia stated that the protocol layer containing the address was not clear, and so it was not possible to state the layer that we are using in the DRNC. *With the removal of the last paragraph and the change of SRNC relocation to SRNS relocation, the document was approved.*

TSGR3#4(99)439 ‘Proposed RRC Connection Re-establishment Procedure’ was presented by Mick Wilson (Fujitsu). Alcatel asked whether the SRNC detects the failure of the radio link, as well as the UE detecting it – Fujitsu assume that it would not; Alcatel wondered what the impact on RRC and RLC

timers was. Ericsson stated that one assumption could be that RLC timers could be at least as long as the RRC connection re-establishment is possible. NTT DoCoMo stated that we should look at two cases – out of sync in up or downlink – this proposal only considers the downlink case. Ericsson ask whether you can have RRC re-establishment in the same cell – it was presumed that you could due to temporary radio conditions; Ericsson stated that this was in contradiction to the R2 specifications. Alcatel asked why the UE could not use the cell update procedure – Italtel stated that it was due to the state of the UE (dedicated channel or RACH/FACH etc). It was then commented that this was really a DCH re-establishment procedure, as it was based on the loss of synchronisation. Alcatel suggested that the break was detected at RLC layer of the signalling channel – Nokia thought that if you had lost one DCH, you would have lost them all as it was due to a layer 1 problem; Alcatel disagreed, because of the DCH/DSCH case.

Figure 2 was discussed – it was asked what the SRNC does between detecting link loss and the re-establishment; the implication of this is that there must be related timers in both UE and RNC. Italtel asked whether figure 12 should go to the new DRNC, but it was clarified that the message was carried in the user plane over Iur as it is on the DCH. Alcatel asked for the box 11 to be removed or modified to include Layer 2. *It was agreed to remove the box 11.* Alcatel noted that message 1 should not show the RRC terminating in the new D-RNC as it only provides a relay function – it should be drawn in a similar way to the URA update procedure. *The message is replaced with a box showing “reception of Uu signalling message”.* Ericsson noted that message 10 should include some physical parameters related to the new radio link. Alcatel asked why the DCH had to be re-established after this procedure – it was clarified that this was included in the message 10. *It was agreed to remove the parameters of message 10, and to make it a box stating “transmission of Uu signalling message”.* *It was decided to replace box 3 with a more explicit sequence, and box 8 with the normal ALCAP boxes. With the changes described above, figure 2 was accepted as one example of a re-establishment procedure, with other examples not being prevented by the standard.*

Figure 3 was not accepted, as so many changes had been proposed (given that many of those that applied to figure 2 also apply to this one).

Alcatel re-iterated their concerns about terminology (preferring RLC re-establishment over RRC establishment). It was restated that these examples were for DCH state, and companies who were interested could send contributions to R2.

Figure 4 – NTT DoCoMo asked why there was a difference between the figure 4 case and the figure 2 case. Nokia proposed that there was no need for the example. The chairman stated that the figure 2 example could be used for the same cell case.

TSGR3#4(99)488 ‘RRC Connection Re-establishment – DCH re-establishment’ was presented by Flavio Piolini (Italtel). BT asked which messages were new – 2,3,5 and 10 were all new. Nortel asked whether this was a DRNC triggered Relocation – it was clarified that this was the case, but in the study item, it had been concluded that this was not needed. BT stated that the box 8 would be different from the standard SRNC triggered relocation as the context was retrieved during that procedure. Ericsson asked what the benefit of doing the retrieval in two ways – Italtel stated that the purpose was to speed up the process of re-establishment. Ericsson could not see how adding four signals speeded up the process. [Italtel replied that in this way the radio link re-establishment and the relocation are performed simultaneously, speeding up the whole procedure.](#) *The proposal was not approved. Further contributions were invited.*

As a consequence, 491 and 492 were not approved.

TSGR3#4(99)437 & TSGR3#4(99)438 were discussed together, with reference to **TSGR3#4(99)546** (LS from S2). The presentation on packet data retrieve at relocation was made by Nicolas Drevon (Alcatel). Nortel asked whether SA2 had decided that context retrieval would be done via Iu. Alcatel stated that they believed this to be the case. Nortel were surprised that this had been done without knowledge of the RLC protocol. It was clarified that the packet retrieval was that of GTP packets not RLC PDUs. Nortel asked how the duplication of part of a GTP PDU was managed – Alcatel stated that it was complex, but explained in 438. Ericsson were surprised that the Iur had not been used, but Nokia pointed out that it had been considered in SA2. Ericsson were confused by the use of transport as an argument between Iu and Iur, as they can share the same pipe anyway. Nokia pointed out that the

mechanisms are already available on Iu and in the core network, while there is no mechanism to do this on Iur. Ericsson suggested that you could just ensure that the buffers are emptied during the relocation process. Nokia commented that it is a lot more robust to transfer GTP PDUs rather than L2 PDUs. Nortel pointed out that the RLC-LLC interaction will be different from the RLC-RLC interaction, so the compatibility with 3G-2G handover is not guaranteed.

The chairman asked whether it had been explicitly stated in SA2 that lossless SRNS relocation and lossless UMTS-GPRS handover was a requirement for R99. Alcatel commented that it had been included in section 7 of 23.20, and so should be included in R99. Ericsson commented that by supporting common channels over Iur it may be possible to avoid most packet loss (by picking the best moment for relocation). Nokia stated that as you cannot estimate when the new data will arrive, you cannot do this. With respect to the requirement, Nokia comment that GPRS includes lossless handover. Siemens asked why we were discussing the requirement, as that should be done outside this group. It was also discussed that SA2 had produced a solution rather than a requirement.

The chairman asked whether the use of common channels on the Iur had been considered as an alternative – Alcatel pointed out that you might still want to perform an SRNS relocation. It was clarified that the proposal applied to all RABs of type Interactive (and maybe for background).

Ericsson comment that the overall proposal is exceedingly complex. Nokia point out that the point for this group is the impact on Iu protocols, and the only change that they can see is the addition of one or two parameters to two messages. The chairman noted that the behaviour of the RNC would also have to be specified. Ericsson re-iterated the comment about the differences between RLC and LLC; Alcatel explained one mechanism to cater with this. The chairman asked whether the RLC state variables would be transferred to GPRS as well. The impact on the timeplan was also discussed – Nokia supported Alcatel's approach as it re-used existing mechanisms. The chairman stated that the key issue was what should be transferred and the functional interactions between entities. Ericsson restated their proposal that common channels on Iur could be used instead. Alcatel stated that this was not acceptable for long-term PDP contexts that could be active for days.

Nokia suggested that the Alcatel proposal should be included as a starting point. T-Modus supported this view. Ericsson did not, and felt that lossless relocation should be moved to future releases. Nortel did not approve either, as they did not agree with the commonality arguments. Alcatel reminded Nortel that SA2 had approved this, but Nortel did not understand how this works on the radio. The chairman asked whether this was really necessary for R99, and proposed putting it into the future releases document. BT proposed rewording the scope of the document, as it had not been decided to exclude it from R99 – Nokia would prefer to keep the future releases document for things that are actually not in R99.

The chairman proposed an email discussion on this – focussing on how can we provide the support for lossless relocation, or other ways to support high reliability RABs – this was agreed, with Nicolas Drevon (Alcatel) as responsible person; it will be called SRNS Relocation. Alcatel stated that their solution was no more complex than GPRS.

TSGR3#4(99)544 'GSM/BSS to UMTS Handover' was presented by Kiran Thakare (Telecom Modus). It was added that this proposal would also affect 25.832. Nortel asked what the NBAP handover detected message was – TM clarified that it was to indicate L1 synchronisation; *it was agreed to remove it.* DoCoMo asked the purpose of the message 20 – it was clarified that it is not really part of the handover. Nokia asked whether the mapping from GSM to UMTS parameters (see point 3) should be made in the BSC, as the mapping from UMTS to GSM parameters is done in the RNC for handover in the other direction. TM stated that it was possible that the translation could be done in the RNC. Italtel asked how the SRNC was chosen when the cells belong to different RNCs; TM stated that the network should be intelligent enough to do this. BT asked which node decided to go into soft handover.

The chairman stated his opinion that there was nothing in our current documents to stop this, but 04:08 and 08:08 need work. Nokia could not see why the existing procedure/example excluded this; they felt that the main issue was in the parameters that GSM could convey. Italtel stated that they would rather see a note added to the existing example. CSELT urged delegates to use the agreed notation and the agreed message names. *It was agreed that a note will be added to the existing example to state that going straight into macrodiversity was FFS.*

TSGR3#4(99)583 ‘Clarification of the RNSAP procedures needed for the support of Mobility and CCH over the Iur’ was presented by Jean-Marie Calmel (Nortel Networks). Alcatel commented that in 2.2, the possibility to release the C-RNTI should not be there, but it was clarified that the CRNC does not know whether the L3 message is a URA update, so a c-RNTI will have been assigned and must be released. *The document was approved.*

8 Iu General Aspects

Handled in Iu SWG.

9 Iu User-plane protocols

Handled in Iu SWG.

10 Iu Signalling (RANAP)

Handled in Iu SWG.

11 Iu Data Transport & Transport network control plane

No Contributions.

12 Iu Signalling Transport

TSGR3#4(99)539 ‘Iu Interface Signalling Transport Specification – comments’ was presented by Stawros Orkopoulos (Mannesmann). Motorola objected to the change and suggested that the IP solution should be mandatory; Nortel & CSELT stated that the change did not correspond to the SA2 compromise decision. T-Mobil asked whether the options caused problems in a multi-vendor environment, but it was suggested that this was to be decided between manufacturers and operators. After a long debate, *the proposal was not agreed.*

13 Iur/b General Aspects and Principles

Handled in Iub/r SWG.

14 Iur/b User Plane Protocols

Handled in Iub/r SWG.

15 Iur signalling (RNSAP)

Handled in Iub/r SWG.

16 Iub signalling (NBAP)

Handled in Iub/r SWG.

17 Iur Signalling Transport

TSGR3#4(99)540 ‘Iur Interface Signalling Transport Specification – comments’ was presented by Stawros Orkopoulos (Mannesmann). There were a number of objections, and *the proposal was not agreed.*

It was noted that there is a small editorial error in the version 2.0.0 that was sent. This will be corrected in 2.0.1, which will be sent to David Williams (3GPP Support). In two places, it stated RANAP, rather than RNSAP.

18 Iub Signalling transport

No contributions.

19 Iur/b Data Transport and Transport Signalling

No contributions.

20 Implementation Specific O&M Transport

TSGR3#4(99)419 ‘Implementation Specific O&M Transport’ was presented by Stephan Recker (Mannesmann). It was the same as the version discussed in the last meeting. *The document was approved.*

TSGR3#4(99)434 ‘Implementation Specific O&M Transport’ was presented by Stephan Recker (Mannesmann). Nokia commented that the mechanism used to carry the IP over ATM should be specified – Mannesmann indicated that they are open to suggestions as to the method that should be used. T-Mobile asked what transport mechanism should be used between RNC and Management centre. It was clarified that the requirement for IP came from SA5. Nortel expressed concern about the requirement for *dedicated* PVCs or SVCs – it was agreed to remove the sentence. *With this change, the proposal was approved.* Vodafone proposed sending this and I3.05 to SA5 for information – Andrew DeLa Torre (Vodafone) agreed to take care of this.

21 Node B O&M Functional Description

TSGR3#4(99)568 ‘Contribution to I3.05’ from the Ad Hoc was presented by the Ad Hoc Chairman, Andrew DeLa Torre (Vodafone). It was proposed that a note should be added to section 7 stating that it should be aligned with the list of procedures in the NBAP specification. *With this change the document was approved to version 0.2.0.*

22 Layer 1 Specifications

TSGR3#4(99)538 ‘Iu Interface Layer 1 Specification – comments’ was presented by Stavros Orkopoulos (Mannesmann). There was some confusion about whether the use of intervening transport networks was required or possible, according to the change. It was generally agreed that the intention should be that the use of intervening networks should not be prevented; several companies expressed concern about the combination of “shall” and “like” together in a specification. On the other proposal, *it was agreed to remove the words “at least” from the clock stability requirement in 4.2 as proposed. With this change, the document was made 2.0.1 and should be sent to TSG RAN plenary.*

23 Reporting from SWGs

23.1 Iu SWG Report

TSGR3#4(99)580 ‘Summary of Iu SWG’ was presented by the Iu SWG Chairman, Atte Lansisälmi (Nokia). Motorola asked for clarification on the meaning of common C-plane protocols; BT responded that the intention had been that the application level signalling should be common (i.e. RANAP). *It was agreed that this should be clarified in the sentence.* The chairman commented that September might be a bit late to stabilise the terminology, and suggested that an email discussion would be appropriate.

With the modification above, the decisions of the Iu SWG were approved.

23.2 Iub/r SWG Report

TSGR3#4(99)579 ‘Summary of Iub/r SWG’ was presented by the Iub/r SWG Chairman, Per Willars (Ericsson). It was corrected that agenda item “16.3” should read “6.1”. Ericsson noted that document

449 had one conclusion omitted – it was also concluded that a note should be added to RNSAP and NBAP specifications that only one procedure could be run at a time. Also, the transaction ID was to be included in the RNSAP and NBAP messages.

Under tdoc 451, it was asked whether it had been agreed to include TFI in header? Already included; number of TFIs to be included in FP header to be signalled at RL setup.

Under tdoc 447 – it should be stated that cell reconfiguration procedure accepted (but marked as FFS).

All decisions of the Iub/r SWG were agreed (including the changes above).

24 Outgoing liaisons

TSGR3#4(99)558 ‘Proposal of LS on Node Identification over Iu and Iur’ was presented by Alain Maupin (Ericsson). It was commented that the Global RNC ID uniquely identifies the RNC (not just in the PLMN). Therefore, the words “within PLMN” were removed. With this change the LS was approved (a copy of TSGR3#4(99)454 shall be sent with the LS).

TSGR3#4(99)560 ‘Reply to LS from S2 on cell broadcast service in UMTS’ was presented by Björn Ehrstedt (Ericsson). Telia asked whether Iu interface is really entirely within R3 – to prevent misunderstanding, it was agreed to remove the word “fully”, in the final paragraph. T-Mobil proposed asking whether the CBC might be common between GSM and UMTS – the chairman stated that this was a matter for SA2. *The document was agreed (with the change above, and the addition of T2 SWG3 to the Cc list).*

TSGR3#4(99)562 ‘Proposal of LS on RAB Sub Flows concept and associated definitions’ was presented by Alain Maupin (Ericsson). Nortel asked whether there was an LS on co-ordinated DCHs sent to R2, as they felt that this should be related to that – this had not been decided – this should be co-ordinated on a per company basis. *The document was approved (with the change of RAN WG2 to the To field, from the Cc field).*

TSGR3#4(99)569 ‘Proposal of response LS on GTP evolution’ was presented by Alain Maupin (Ericsson). It was confirmed that the annex was as approved in the last meeting and had not been altered in this week’s SWG. *The document was approved.*

TSGR3#4(99)573 ‘Separate delivery of transport blocks within a transport block set by MAC-d to L1’ was presented by Gert-Jan van Lieshout (Ericsson). *The document was approved.*

TSGR3#4(99)570 ‘LS concerning Paging Co-Ordination’ was presented by Cheng Hock Ng (NEC). *The document was approved without modification.*

TSGR3#4(99)571 ‘Proposed LS on Turbo Charger Feasibility Study’ was presented by Pierre Lescuyer. Atte Lansisälmi commented that the Iu SWG had not agreed that “it was not possible to provide any guidance”, as we are giving some guidance in this LS! He proposed replacing “any” with “the final”. Ericsson proposed rewording the end of the second paragraph as “impact on Iu interface (procedural, architectural and functional).”. *With these two changes, the document was approved.*

TSGR3#4(99)572 ‘LS on Cell Configuration and Management Philosophy (Draft) was presented by Andrew DeLa Torre (Vodafone). Ericsson asked whether some cell parameters could still be set by Implementation Specific O&M – this was confirmed, as the “general cell model” was the standardised cell model. Nortel proposed that this be made explicitly clear. *It was agreed to change the word “general cell model” to “logical cell model”.* Motorola proposed changing “general cell parameters” to “logical cell parameters” in the last sentence as well. *This was agreed, and with these changes, the document was approved.* Vodafone will send this directly to SA5, as they are meeting at the moment.

TSGR3#4(99)581 ‘Draft LS reply from R2 on support of DSCH on the Iur interface’ was presented by Fabio Longoni (Nokia). Ericsson asked whether the combined TFCI referred to the further refinement from the original liaison – this was confirmed. The chairman noted that it would be better to say that

we are “*planning to study*” a mechanism for capacity allocation; *this was agreed*. Telecom Modus asked why there was no explanation of the complexity – Nokia responded that R2 had identified a significant timing problem over Iur in their original LS. Ericsson asked whether it was a good idea to have two solutions, one of which would only work in some cases (SRNC≠CRNC). Nortel did not think that they would be very different from the protocol perspective, so this is really a radio interface issue. Further discussion made it clear that further study was needed to consider the impact on our protocols of having two solutions. It was noted that the last paragraph (including the two bullets) suggested that the twin solution was the preferred R3 solution, which could be misleading as some companies had concerns about the frame protocol issues. *It was agreed to make two changes to the final bullet point:*

- *insert “in all Node Bs” after “physical channel”*
- *Add to the end “This may also require frame protocol reconfiguration. WG3 has not yet studied all of the details of this solution.”*

Alcatel asked for the title to be changed for clarification, but this was not agreed. *It was agreed to add a parenthesis “(about timing and synchronisation issue)” after “last frame in the LS” in point 2. It was agreed to add a comment that for the separated TFCI solution, there would be no problem, and that this is the current working assumption; this should be inserted at the start of the paragraph beginning “for the reasons reported above”. The second sentence of the same paragraph should be modified to read “When there is a need...” (deleting the first three words).*

TSGR3#4(99)577 ‘Proposed LS on Principles on Uu protocol specifications’ was presented by the chairman. Nortel asked how the document defining the protocol architecture could avoid mentioning nodes and interfaces. The final paragraph was modified to include “radio interface *protocol specifications*”. *With this change, the document was approved.*

TSGR3#4(99)578 ‘Proposed LS on Comments on QoS report’ was presented by the chairman. Telecom Modus asked for clarification about when you could or could not use transparent RLC – it was made clear that to map SDUs directly to the transport channels, it was necessary to know the sizes in advance. Otherwise padding, segmentation and reassembly might be needed.

Comments –

Nokia proposed that the sixth bullet should have “and over Iu” removed. *This was agreed*. Ericsson asked the opinion of the group on whether a Source Traffic Descriptor would be useful, as this would allow for more statistical multiplexing gains to be made in UTRAN. Alcatel responded that this had been discussed in SA2 and SA1, and that speech was a special case where this would be useful – in other cases, it would be much harder. It was also suggested that speech could be inferred from the combination of QoS parameters, but this was not generally agreed. *It was agreed to add a sentence stating that R3 could see benefits of having some information about the source characteristics to help with statistical multiplexing, especially for speech services, and asking for the status in SA2.*

Nortel asked whether the Predefined SDU format or the Variable SDU format could be applied to any of the classes – the chairman could not see the benefit for interactive and background classes. Nortel believe that it simplifies implementation, but the chairman said that it was linked with resource reservation in UTRAN. *It was then agreed that the last bullet on the first page should be modified into a question asking for either an explanation of how to allocate DL buffer capacity using existing parameters or for them to consider adding a new parameter to assist (in the interactive and background classes).*

It was agreed to remove the bullet concerning the maximum bitrate parameter.

It was agreed to remove the sentence referring to maximum rate control in the second bullet on the second page. The first sentence of this bullet is also removed. A general comment is added that R3 may have more comments after further study and discussion.

It was agreed that the last bullet should be modified to read “From a UTRAN point of view, we understand that the background class could be considered as interactive with the lowest traffic handling priority level.” It should be asked whether this is correct.

Finally, it was agreed to insert the definition from the vocabulary document into the RAB explanation.

With all the changes noted, the document was approved.

TSGR3#4(99)584 ‘Draft LS to R2 on high level principles for cell mobility and URA mobility management over Iur’ was presented by Jean-Marie Calmel (Nortel Networks). *It was agreed to change the last sentence of the second paragraph to “The meaning of CCCH there is that ... whereas the meaning of DCCH is that Iur User...”. With this change, the document was approved.*

TSGR3#4(99)582 ‘Draft reply to LS from R2 on asymmetric transport channel reconfiguration’ was presented by Takaaki Satoh (NTT DoCoMo). Nortel were uncomfortable with the second bullet mentioning “additional parameter” as they think that our parameter set is incomplete. Nokia asked whether the document had been received as a LS – this was not really clear, so the title was changed to make this a stand-alone LS rather than a reply. The last point was reworded to state that WG3 sees no need for the additional procedure “considering the Iub/r interfaces”. *With this change, and the change of title, the LS was approved.*

TSGR3#4(99)561 ‘Proposed LS on UE requirement to report OFF’ was presented by Kevan Hobbs (Motorola). Ericsson commented they thought that we had agreed to ask whether the ability was there, rather than to recommend that it should be. The last sentence was reformulated into a question. *With that change the document was approved.*

25 Next meeting (agenda etc)

The structure for the next meeting will be as follows:

- 1 day opening plenary
- 2 or 2.5 days of SWG
- 1.5 or 2 days of closing plenary.

The aims of the next meeting, are to:

- Decide on optionality of Iur and other debatably optional things.
- Finalise the procedure descriptions and list of messages. This means that contributions are required for error cases.

Ongoing and New Email Study Items:

- ARC/1 Optionality & Solution of Common Channel over Iur
- ARC/4 ASN.1
- ARC/3 Delay Budget
 - Turbo Charger
 - RANAP Messages
 - SRNS Relocation
 - Multimedia Call-Setup LS
 - Remaining Contributions from this meeting

Schedule:

New versions of Specs by Monday 14th June, to be submitted to TSG RAN and WG3.
There will be an O&M Ad Hoc on 29-30 June. Location to be announced.

The deadline for contributions for next meeting is 3 working days before the next meeting.

26 Any Other Business

TSGR3#4(99)566 ‘O&M Ad Hoc meeting report’ was not presented, but the following correction was announced: on page 3, near the bottom, the second 435 should be 436.

TSGR3#4(99)430 ‘Study Items for future releases’ was presented by Nicolas Drevon (Alcatel). It was agreed that sections 5.3 and 5.4 should be moved to section 6. *With this change, the document is approved.*

27 Closing

All editors should update their documents after the meeting, and should note on the front that marked changes are not yet approved by R3.

Our Iu specifications should be sent to SA2 for information – Atte Lansisalmi volunteered to collect these and send them to the secretary for forwarding.

The chairman thanked the hosts and support team for the outstanding organisation and the social event.

TSG-RAN Working Group 3, meeting #4
Warwick, United Kingdom, 1-4 June 1999

TSGR3#4(99)580

Source: Iu SWG Chairman
Title: Summary of Iu SWG

Introduction

This document presents the report from Iu SWG held on June 2-3 1999 during TSG RAN WG3 meeting #4 in Warwick UK. The meeting was chaired and the report prepared by Atte Lämsäalmi. The report is in line with the agenda used in the meeting (the incoming liaison handling is reported as the last item (without a number)).

8 Iu General Aspects

8.1 General Aspects and Principles of Iu interface (25.410), 416, (460)

Tdoc 416 "UTRAN Iu Interface: General aspects and Principles" was presented by the editor Richard Townend from BT. It includes the changes agreed in the previous meeting. The document was reviewed

In the figure in section 6.3 GTP-U should be shown in the transport network layer

It was agreed to show two different data streams, one for Iu CS and the other for Iu PS

The TNCP of the ALCAP should be removed from Iu PS.

Correction ALL to AAL just before section 6.3

q.aal should be replaced with q.2630.1

Bottom of section 6.3 (under the figure) It was agreed to include statement "RANAP Signalling is used to set-up, modify and release GTP-U tunnels."

With these modifications the document was approved.

Later during the meeting it the following was also agreed:

Section Iu specification objectives 4.3: The following statement was added. "The Iu Interface specifications shall facilitate the migration of some services from the CS domain to the PS domain. In particular the Iu C-Plane protocols shall be common for both domains and the U-Plane protocol(s) shall be independent of the CN domain, except where specific feature is only required for one domain."

9 Iu User-plane protocols (25.415) 462;

Tdoc 462 "UMTS 25.415 Iu Interface CN-UTRAN User Plane Protocols" was presented by the editor Alain Maupin from Ericsson. He also mentioned that **Tdoc 402** (not discussed here) Includes the previous version of 25.415 with the changes done in the previous meeting, and it was presented already in the closing plenary of the previous meeting. Therefore **Tdoc 462** also includes the editors proposals. The document was first reviewed for changes in the previous meeting.

The appendix A was discussed. It includes information that was approved in the previous meeting, and was placed here in the lack of better place. It was agreed to remove the information from here, and

include it to a liaison statement to CN WG2 as an input from this group. Alain will draft the liaison, which is in response to LS in **Tdoc 525**.

The changes from the previous meeting are approved.

The editors proposals were reviewed, and they were approved with the following modifications:

Status to be moved to an annex

Editors note from 6.1 General removed.

GTP-U removed from abbreviations

It was agreed to add a statement that it is FFS whether the Iu PS U-plane is a transparent layer only, or whether there is also some protocol, i.e. in relation to former CS services.

9.1 General

9.2 CS-domain data stream protocols 458, 459

Tdoc 458 "Initialisation Procedure used by the Iu UP protocol layer" was presented by Alain Maupin of Ericsson.

Patrick Johnson from Nortel asked why in-band signalling is preferred over out-band signalling. Alain explained that Ericsson believes this is more future proof, e.g. in the TFO case, and it facilitates the separation of C-plane and U-Plane.

It was clarified that the initialisation takes place right after u-plane establishment as the first thing. Cecile Appert (France Telecom) asked what is the main difference between initialisation and RAB format selection. It was answered that RAB format will be given in initialisation. RAB format is the same as RAB sub-flow combination and it is FFS. Jörgen Van Parys (Alcatel) asked where does the RAB sub-flow combination set come from - the CN? Alain: The SRNS builds it. The set is vendor specific. Patrick asked why do you need to initialise if you already have the set primitive. Alain: Initialisation is needed by the RNC to limit the possibilities given by the CN, and to indicate the selection. Richard Townsend (BT) asked is there separate in-band signalling to the UE from the RNC? Alain: this is not part of this contribution, but there is need for the transport format combination negotiation between the RNC and UE.

Kalle Ahmavaara asked what is returned in the RAB Assignment response in the control plane? Alain: In the Control plane the RAB response there is no need to return any information that is needed to control the TC, because all of that is in the in-band initialisation. It was discussed whether the selected bit rate for the AAL2 connection needs to be included in the assignment response. There was understanding that it is not needed, but some information is needed e.g. for billing e.g. what codec is selected (not the mode).

Kalle asked about the SDU sizes, how does the UTRAN know them? Michael Roberts (Lucent) asked are the RFCIs and the SDU sizes implicitly determined by which mode is being initialised. Alain: Yes. Michael: What if there are same total size with many combinations, is it a problem? Alain: This should not happen, but if it does, then the codecs should negotiate the selection.

Patrick asked is this initialisation used for data also? Alain: The use of this for data is FFS, but could likely be used.

It was asked why it is needed to specify the RFCI and codec mode, and not to have direct mapping? Alain: this flexibility is proposed because it is future proof. Kalle: This is proposed to have Codec location and points where RAB assignment is done independent so that they don't need to be co-located, then how does the SDU sizes are known to the RAB assignment point? Alain: The RAB setup point should know the service anyway, and respectively the possible SDU sizes should be known.

Alain clarified that the CN gives the SDU combinations from which the RNC may select the SDU sizes.

Kalle was still asking why the SDU size is given explicitly, whereas it could be known implicitly from the RFCI.

The total size vs. size of each sub-flow was debated. Kalle and Patrick were proposing listing the sizes of the sub-flows, and Alain was in favour of having the total size. The first is most flexible, but it consumes more bits than reporting just the total size.

Why is the initialisation a separate procedure, that can not be done in other procedures. Alain commented that the common Max size procedure (that could have been used) was not accepted in the previous meeting.

Michael: How are the different codecs signalled. It was clarified that it has already been decided that the codec is selected before RAB Assignment. Alain: In more general case the SDU sizes and RFCIs to be used during that connection are signalled in the U-Plane, and in the RAB Assignment complete we signal what the codec is. Whether the UTRAN should have selection power of the codec is another question.

After these discussion the **following agreements were reached:**

Proposal 1, Inclusion of the initialisation procedure: It is agreed with the following modifications: For the whole procedure it will be indicated that "It is FFS whether this procedure is merged with a more generic procedure that is used during the operation".
for figure x and the accompanied text it will be stated that "Whether the total SDU size or the size of the individual SDUs is reported is FFS".

Proposal 2: Inclusion of definitions to UTRAN Overall Description:

The Definition of RAB Sub-flows combinations and RFCI will be included to the liaison to SA2 that was agreed in the plenary and includes the concept of RAB sub flows. The liaison will be in Tdoc 562 (drafted by Alain)

The definition is appended with the following sentence: "Each combination is given by the CN and can not be altered by the SRNC"

Proposal 3 is accepted (addition to terminology document), and Alain will send an e-mail to the editor of the terminology document.

Tdoc 459 "Primitives used by the IU CS UP protocol layer" was presented by Alain Maupin of Ericsson.

It was clarified (asked by Cheng Hock Ng of NEC) that the AAL2 parameters are from the AAL2 specifications. It was also clarified (asked by Wolfgang Hultsch of Siemens) that 1-45 octets are proposed because that does not require segmentation and re-assembly in AAL2.

Wolfgang further asked why AAL-UUI is stated as "not used", it is mandatory parameter and some values are already defined. Alain explained that for the purpose of this protocol, no value setting was identified for that parameter. It was agreed to clarify the situation by adding a note stating:

"The setting of this field must be defined, but is FFS. This primitive is referring to ITU specification NNN (to be filled by Alain). The Primitive shown her is to show how to use it in the Iu Interface U-plane"

It was also agreed to add SAAR after SSCS in the note in the end of section 2.

The proposal to include the primitives to 25.415 was approved with the above mentioned modifications.

9.3 PS-domain data stream protocols

10 Iu signalling (RANAP) (25.413) 420, 554

Tdoc 420 "UMTS 25.413 UTRAN Iu Interface, RANAP Signalling" was presented by the editor, Jyrki Jussila of Nokia. It contains the modifications agreed in the previous meeting. It was agreed with the following modifications:

A note needs to be added that the Relocation cause information element (indicating hard handover, or SRNS Relocation) is needed.

abbreviations RL and BID are removed

The two bullets from the end of Relocation Complete need to be moved to Relocation Resource Allocation, and copied to Assignment procedures (with modification of message names).

Tdoc 554, "General Comments to 03.13" from Lucent was presented by Michael Roberts.

The clarification on terminology was discussed. It was agreeable to all that this type of activity would enhance the quality of the document a great deal. The possibility to have an AdHoc session to clarify the document and terminology was discussed. Due to busy schedule for the other technical issues, it was agreed to have the meeting later on in the year, in the September time frame. The input from this document could be handled then.

10.1 Study Items report and decision:

Iu/5 (separate or combined RAB assignment) **507**

Tdoc 507 "Iu/5 Study Item report" was shortly presented by Nortel. The conclusion from the study item co-ordinator is that the combined procedure can be selected.

Cheng Hock from NEC asked clarification on the dependency of the different lists in the combined procedure. It was clarified that the lists are independent e.g. clearing a of a RAB should never be dependent on the ability to setting up a RAB that is in the same assignment procedure.

Kalle Ahmavaara also clarified that the combined procedure has a tiny advantage from the radio resource handling point of view, because in case there is set-up and release of a RAB in the same message, the RNC can realise that there is no need to move the UE to Common Transport Channels in between the release and setup. The chair added that in the discussion there hasn't been any points that would indicate any major difference for the implementation in either procedure.

Wolfgang commented that the error cases for the combined procedure may be more complicated. The group had an agreement that the error cases need to be specified very carefully in both cases.

It was concluded that the study report is approved with the conclusion that combined RAB set-up modify and release procedure is selected as the only option. The study item is closed, and the all sections related to the separated procedures are removed from RANAP

10.2 List of procedures

10.3 Procedure specifications 445, 446, 456, 475, 476, 477, 478

Tdoc 445 "Paging procedure (Revision of R3-99357)" from NEC was presented by Cheng Hock Ng.

It was asked If the CN has the paging co-ordination is it so that then the CN doesn't send the Common Id to the RNC. Cheng Hock answered that this is the case. NEC also clarified that paging repetition is still done from the CN.

Wolfgang commented that this message is actually not paging, but contacting the user via an existing signalling connection. There is actually message for this purpose and it is called "Information". NEC

commented that the proposed functionality is to send the paging on existing signalling connection, and had there been no signalling connection, a paging would be issued.

The behaviour of the CN paging co-ordination was not clear for the group, and therefore a liaison will be drafted by NEC (helped by Richard) to SA2 (CC: CN2). asking how the paging co-ordination works.

Tdoc 446 "Relocation Detect message in RANAP" from NEC was presented by Cheng Hock Ng. The proposal is to make the message optional

Kalle Ahmavaara clarified the purpose why the message was proposed to be always there in the first place: the purpose of the Detect message is to help the CN to decide the switching time for the services where it is critical to have as short of a break in the communication as possible. It is to allow the fast switching for real time services.

Alain Maupin asked how does the target RNC know when to do the switching? Wolfgang Hultsch further asked is it related to the QoS parameters of the RAB?. Kalle Ahmavaara clarified that the CN should have the information to make the judgement when and how to handle the switching.

Cecile Appert from France Telecom commented that the optional messages are not desirable. The message should be made conditional of the service. Richard Townsend agrees, and further asks how about two CN entities, is it confusing to have it for one and not for the other? Kalle answered that the RNC should decide when to send it. Both Kalle and Alain explained the point that it is easier operation for the RNC, when it doesn't have to consider the cases when the Detect is needed, but simply to send it always. Alain further clarified that the functionality for utilising the Detect message is already there in the existing MSCs.

Decision: Based on the discussions it was finally decided to have the Detect as a Mandatory Procedure. The contribution was not accepted, and the FFS statement related to this is removed from 25.413.

Tdoc 456 "RANAP Error Indication procedure" from Ericsson was presented. The proposal was discussed and the following comments were made: The possible action for the CN to take when receiving this message should be defined. It is understood that this can most likely be combined with the Error report message that had been proposed by Nokia in the plenary session.

The proposal to add the procedure to 25.413 was accepted with the modification that the private extension parameter is removed.

Tdoc 475 "Location Reporting Over Iu Interface" from Nokia was presented by Kalle Ahmavaara.

Alain asked if reporting number is the same as Transaction Id. Kalle explained that the report number identifies the reports belonging to one control procedure. Alain commented that maybe reporting type could be used.

Kalle also clarified that this has not been co-ordinated with GSM Location Services and the BSSMAP procedures. Patrick reported that those have not been frozen yet.

The proposed text from the document was agreed to be included to 25.413 with the following modifications:

The identification of different location reports is FFS.

UTRAN is replaced with RNC.

network is replaced with CN

Statement is added in section 2.2.1 indicating that the contradicting parameters are FFS.

This procedure needs to be aligned with the GSM location services.

Tdoc 476 "Relocation Failure RANAP Procedure" from Nokia was presented by Kalle Ahmavaara.

The split between error case was

It was commented, and seemed agreeable to all that the Serving RNC Originated and Target RNC Originated Relocation Failure procedures should be shown as different cases. Alain also commented that it would be better to have unsuccessful operation and failure as different cases.

The document was not approved and Nokia will produce a revised contribution based on the comments for further meetings.

Tdoc 477 "Relocation Preparation procedure" from Nokia was presented by Kalle Ahmavaara. It was clarified that actually there are two proposals, the combining of "relocation required indication" and "relocation execution" to "Relocation Preparation", and the procedures for unsuccessful operation. It was agreed to only address the first one, because the unsuccessful operation need further clarification.

The proposed modification in the first sentence is removed and instead, the words "as response" are added to the beginning of the first sentence
The words including "sets the amount of pending Transaction Ids for Relocation Preparation to 0 and" is removed.
Also CN and Serving RNC should be used consistently.

Tdoc 478 "Modifications to Relocation Resource Allocation" from Nokia was withdrawn, because most of it was related to unsuccessful operation and error cases which had already been discussed but were not approved.

Tdoc 553 "General Comments to 03.13" from Lucent was presented by Michael Roberts. The comments were handled as follows:

First comment: Not applicable because the corresponding text is removed.
Second comment: The principle of referring to the functionality and not the parameter name in the procedure description was accepted. It has to be done very carefully not to remove any information that has already been approved. Lucent will provide more detailed comments on the issue later.
Third comment. Approved with modifications. The statement now reads "The CN elements shall release all resources associated to the Source RNS."

Furthermore it was agreed that the terminology Source RNS and Target RNS should be used consistently and globally throughout the Relocation procedure in RANAP. The definitions of source and target RNS should be placed in the Iu General Principles 25.410 (Kalle, Michael and Richard will draft the definitions during lunch).

Tdoc 552 "General Comments to 03.13" from Lucent was presented by Michael Roberts. Some comments are no longer applicable (consequently withdrawn), because the text had been modified since the comments were written. The comments were handled as follows:

Comments 1 -4 are not applicable.
Comment 5 is accepted, and general find and replace operation shall be done by the editor from SCCP to more general statement referring to the signalling connection.
Comment 6 withdrawn from now
Comment 7 Accepted, all references are removed for now. They may be later inserted e.g. during editorial task clearance of the document.
Comment 8 not applicable.
Comment 9 withdrawn
Comment 10 accepted with modification that the sentence now reads "If all necessary resource(s) are successfully allocated the target RNC sends back to the CN a RELOCATION REQUEST ACKNOWLEDGE message"
Comment 11, 12, 13 and 14 withdrawn
Comment 15 has already been addressed in **Tdoc 553**
Comment 16 withdrawn
Comment 17. It was agreed to include two new sections for Source RNS and Target RNS synchronisation in Relocation procedure. They are empty for now, and contributions to fill them are invited.

10.3 Message contents 455, 461, 503

Tdoc 455 "RANAP Relocation Procedure: transparent elements" from Ericsson was presented by Alain Maupin. Ericsson proposed not to handle the document straight away, but asked that it would be treated if time allows. In any case Alain welcomes any comments on the procedure. (There was no time to return to this paper)

Tdoc 461 "CN Type indicator in Paging message" from Ericsson was presented by Alain Maupin. The proposed parameter was agreed and text from the contribution is added to 25.413 with the following modifications:

A note is added stating: "Once the domain distribution is clarified with SA2 the Paging indicator may need to be modified."

The "CN type indicator" is re-named "CN domain indicator", "MSC" is replaced with "CS domain" and "SGSN" with "PS domain".

Tdoc 503 "Message contents for the RANAP procedures" from Nokia was presented by Jyrki Jussila. Since it is a long document and not all sections are applicable, a section by section presentation was done.

Section 4.2:

The following general points were made:

It was pointed out that there is mention in the RAB Assignment procedure description about a Bit String to be passed to the user with the setup. It was noted that if there is no more information on what the bit string to be passed to the user is, how and when it is used, then it needs to be removed from the procedure description.

The definition for the parameters for the queuing are missing from the contribution even though the message is included in the RAB Assignment procedure. It was discussed that there may be a need for a separate elementary procedure for Queuing, and contributions for that were invited.

The parameters for RAB Assignment Request, RAB Assignment Complete, RAB Assignment Failure were accepted with the following modifications:

It was agreed that there is no need for the list of bearers to be kept, and it was agreed to remove it from the procedure section as well.

A note needs to be added to the parameter "Priority level and pre-emption indication" indicating that "It needs to be clarified how this parameter is in relation to priority parameters already included with the Bearer parameters"

The groups are set to be conditional (C1) and the following note is added: "C1 at least one group shall be present."

A general note is added to RAB Assignment Request. "It needs to be clarified how the re-ordering information as proposed in Tdoc 276 relates to QoS attribute SDU in-sequence delivery".

There was no time to handle the rest of the sections.

10.4 Other issues,

11 lu Data Transport + Transport network control plane (25.414) ; 444, 520

These items were not handled in the SWG (see report for the plenary session).

12 Iu signalling transport (25.412)

These items were not handled in the SWG (see report for the plenary session).

Incoming Liaison statements.

Tdoc 525 "Liaison Statement on the UMTS Evolution of GTP" from CN WG2 was reviewed. It was agreed to draft a response (Alain Maupin) indicating:

RAN WG3 agrees that CN WG2 will handle the GTP specification.

RAN WG3 accepts that a common GTP-U is used in Iu and the CN interfaces.

Schedule will be reminded.

Inclusion of the information from Appendix A of 25.415 (Iu U-plane protocol document) is included here as an input from R3 to the GTP-U work, and it is consequently removed from 25.415

RAN R3 asks C2 to reply on how they have handled our input, and also to send us information on GTP regularly in the form they see appropriate.

The co-ordination of this work was discussed. It was accepted that Ericsson will make sure that there is a representative in the CN WG2 who understands what we mean by this.

Tdoc 529 "Agreed changes to 23.30 on flexible Iu." This is a liaison from S2.

The first new sentences were discussed (underlined bullet point in section 7.1), and following points were raised. One issue to consider is whether we develop the speech frame protocol so that it assumes AAL2 or whether it also should work on IP. Alain commented that it may be impossible to have the frame protocol completely independent of the lower layer transport. We should have requirements that the protocols are designed independently of the domain, but we consider every case separately. If a functionality is needed for one domain only it should be still included. It was agreed to include this as a general guideline for Iu protocol design in section 4.3 in 25.410, the general aspects and principles document Alain and Richard volunteered to draft this (See the outcome statement in section 8.1 for General Aspects and principles)

It was further commented by Kalle that it would be better to have U-Plane protocols for services, not domains, and adopt those for the different transport network U-Planes. Also the mapping of traffic classes to different domains was discussed. It was understood that even though there is a direct mapping in the first phase, we can not assume this in the long run. A general understanding was reached that instead of naming (and designing) the frame protocols based on the different domains, we should have frame protocol with different modes (i.e. transparent and non transparent). The implementation of this is left for further contributions.

The second new section was discussed (underlined bullet point in section 7.2). Richard explained that the text should read Application Protocol discriminator. The statement was not well understood, so it was decided to leave it for now. Everyone is urged to find out what it means (Atte will make sure we'll have something by the next meeting).

The document is carried over to the next meeting.

Tdoc 526 "3GPP Call-Setup Requirements for Circuit Switched Multimedia Telephony Service" was discussed shortly. There was no time to analyse the concept in more detail, and therefore we don't answer anything at this time.

Tdoc 524 "Liaison statement on the Turbo-Charger Feasibility Study" from TSG CN WG2 was presented by Patrick Johnson of Nortel. A technical presentation of Turbo Charger concept is included in **Tdoc 557** "Draft Technical Report : Turbo Charger", and Patrick introduced that shortly as well.

Some of the points raised were: It was clarified that in addition to Routing Function there is a need for Switching function for connecting the RNC to any of the CN entities that are access-able from the RNC. Kalle asked where is the functionality placed in the RAN or in the CN? Patrick replied that it is FFS, and all impacts hadn't been studied yet. Alain found a statement from a 23.30 indicating that the function would be part of RNC. Anyway, it was agreeable that the location of the function makes

difference in what the effect on architecture is. It was further commented that if the routing is in the RNC, then the RNC has to route messages that are not terminated there, e.g. MM level messages.

It was pointed out that the impact on Relocation procedure needs to be studied. Furthermore the impact on paging is unknown, and how the CN entity determines where to page the UE. This is in relation to how Location/Routing Areas are allocated.

It was clarified that the routing based on TMSI and/or NRI and it means that TMSI and/or NRI has to be partitioned between the switches.

Alain commented that the concept is interesting but the affect to Architecture, MM, Iu procedures, the Routing function, its management etc should be understood before agreeing to include this. Furthermore we should consider whether our remaining meetings provide enough time to include this new concept.

Enrico pointed out that The concepts need to be better understood to be able to make the final judgement. The technical report is not sufficient for this purpose.

It was pointed out that it would be important to hear the operators. Brendan McWilliams (Vodafone) had already stated that the load sharing is welcomed idea. Richard Townend (BT) agrees on the importance of load sharing, but also points out the schedule impacts.

It was clear that the effect on the schedule is important because it is going to be difficult to finalise all the functionality included now in the time frame for release 99.

It was agreed that a liaison back to CN WG2 needs to be drafted. Nortel volunteered for this. The liaison statement should state that we have not analysed the concept to the full extent, because the Technical Report is not at the level that would allow doing that. However, we are concerned that our tight schedule may not allow inclusion of new substantially different functionality. We will however analyse the issue more, and provide more detailed answer.

To get the technical analysis going it was agreed to have a new E-mail discussion group for this. The title is "Turbo Charger", and Patrick Johnson (Nortel) will be the co-ordinator of that.

Tdoc 548 "CN Architectures to be supported in UMTS Release 99" from S2 was reviewed. The SWG understood that the number of SCCP connections as well as, the distribution mechanism is for WGR3/Iu SWG to decide, and there is no need to ask for clarification on the text in the liaison.

It was pointed out that it had already been discussed in the plenary that separate SCCP connections for service requests to different domains is acceptable solution. It was however now clarified that SSN is not appropriate solution for the discrimination. The technical solution shall be discussed when further contributions on the area are received.

TSG-RAN Working Group 3 meeting #4

TSGR3#3(99)579

Warwick, UK, 1-4 June 1999

Source: Iub/Iur SWG Chairman
Title: Summary Iur / Iub SWG

GENERAL

The Iur/Iub SWG meeting was held 2-3 June and chaired by Per Willars. The meeting trusted the chairman to take correct notes. The conclusions are fully reported (except all editorial modifications agreed). Only some discussion is reported.

CONCLUSIONS

The document numbers given below in bold were presented and discussed at the SWG meeting.

6 General UTRAN Architecture

16.3 UTRAN Architecture (25.401), O&M issues

- **510** Associating failures with Ues. **Conclusion:** In principle agreed to include such function in I3.05. Proposed text to be drafted by editor + Docomo.
- **511** Distributed implementation specific O&M. **Not accepted.** It was clarified that the current architecture is logical and does not restrict an implementation where parts of the management platform is collocated with the logical RNC on the same equipment.

13 Iur / Iub General Aspects

13.1 General Aspects and principles of Iur interface (25.420)

- **417** Changes from last meeting. **Approved.**
- **530** Editors proposals. **Approved.**
- **495** Optionality of Iur UP. **Not approved.** Must consider in more detail how optionality is handled and how much differences to allow between TDD and FDD.

13.2 General Aspects and Principles of Iub interface (25.430)

- **418** Updated 25.430. **Approved with following changes.**
 - Should align protocol names with the agreed transport layer specifications.
 - Clarified in 6.2.2.7 that “For each DSCH there is one Iub DSCH Data Port for each Node B communication context with data multiplexed on this DSCH.”
 - The text moved from 25.434 at last meeting should be included as clarified on mail reflector.
- **450** Coordinated DCHs. **Approved.**
- **496**, Shared channels for TDD. **Partly approved**, the following is agreed:
 - Change current DSCH data port to “FDD DSCH Data Port” in the logical model
 - Add objects for “TDD DSCH Data Port” and “TDD USCH Data Port”. Outside traffic termination point in the figure. Described as one data port per cell.
 - Add “USCH for TDD” to all places where Common Channels currently refer to “RACH, FACH and DSCH”.

- **469** O&M related changes. Agreed with following modifications:
 - Remove sentences referring to Implementation specific O&M in section 4.2.
 - Move last paragraph in 4.3 to a footnote.
 - List of functions in 5.1 aligned with outcome of tdoc 468: change to Iub Link Management, Radio network performance measurements, Radio resource management. Node B initialisation and software management removed.

13.3 Common channels on Iur – overall concept (Arc/1)

13.4 Common channels on Iur – optionality (Arc/1)

14 Iur/Iub User-plane protocols

14.1 Iur/Iub DCH data streams (25.427),

- **426** 25.427 v 0.1.1. **Approved.**
- **555** Editors proposals. **Approved with following change.**
 - Definition of transport connection: only first sentence kept.
- **451+517** on DCH FP structure: **451 approved with following changes.**
 - Streamlined mode requires further studies and changes to MAC-L1 interface => should be noted as “FFS dependent on feasibility on radio interface”. Agreed to send LS to WG2 regarding streamlined mode.
 - “Data” changed to “Payload” in frame structures of both data and control frames
 - Change “Valid on” to “Present on”
 - Change “DCH combination indicator” to a list of TFIs.
 - Remove synchronisation indicator (to be discussed in conjunction with 518).
 - Move quality estimate to Payload part. Add note that the definition and use of the Quality estimate is FFS.
 - Clarify that the Tail checksum is a checksum of the header and the payload.
 - Add a note that “It is FFS if control information could be present in the Data frame.”
- **452** UL outer loop power control. **approved**
- **505** Mux of DCHs on same transport bearer. Already covered by 451+517. **Noted.**
- **518** Discontinuous transmission. **Partly approved** with following modifications:
 - Use control frames instead of bits in the data frames for changing mode
 - Note that in silent mode we still need some keep alive signalling with a certain periodicity
 - Note that the use on DL need to be verified. Note that the use on UL is FFS.
- **535** Time alignment. **Partly approved.**
 - Proposal 1: agreed to change to “timing adjustment report”. The sending is initiated by Node B when necessary.
 - Proposal 2: not mandatory. Can be part of the control frame.
 - Proposal 3: Last paragraph of sec 2.2 included into section 8.2.
 - Proposal 4: not agreed. Further contributions needed on possibly separate procedures for initial synch etc.

14.2 Iub CCH data streams (25.435),

- **425** Not presented. Minor editorial changes from last meeting only.
 - **497** USCH data streams. Subchapter numbers were corrected. The proposal was **agreed**.

14.3 Iur CCH data streams (25.425),

- **424** **Approved**.

15 Iur signalling (RNSAP) (25.423)

421 25.423 **agreed** with modifications:

- Annex with stability information should be added.
- Section to 8.1.2 is moved to section 8.3 in accordance with last meetings decision.

15.1 List of procedures

Agreed that the set of procedures at the end of meeting is the complete set of RNSAP procedures, except for possible needed procedures for common channels on Iur.

15.2 Procedure specifications,

- **490** Load indication. The following is agreed after discussions:
 - The current load indication procedure in section 8.2.8 of RNSAP specification is kept but renamed to Radio Link Load Indication.
 - Last paragraph of 8.2.8 and the bullet list is removed.
 - Add a note "It is FFS whether this shall be kept as a separate procedure or included in the Radio Measurements Reporting procedure."
- **491** Not agreed. Come back to this after discussion of RRC connection reestablishment on 25.931.
- 492** Not treated in SWG.
- **493** Physical channel reconfiguration. Agreed as follows:
 - Rename 8.2.6 DL code reconfiguration to Physical channel reconfiguration. Keep the text.
 - Mark the DL Code as parameter in FDD-case and add User code / UL time slot / DL time slot as parameters for TDD-case. Include these as conditional parameters in 9.1.
- **516** **Agreed** as follows:
 - Load indication: Include in new RNSAP module and subchapter for CRNC-CRNC Resource Handling. Editors of 25.423 and 25.420 to propose text for new module. Text editorially clarified (...bearer. This message contains...).
 - Measurement reporting: Agreed to include in both RNSAP and NBAP. Add that at least Used DL Power is included in this message. Remove RL addition and RL reconfiguration (keep only RL setup).
 - DL power control: Agreed.

15.3 Message contents

15.4 Other issues,

- **513** Not discussed.

16 signalling (NBAP) (25.433)

- **422** Agreed with following modifications:
 - Footnotes in section 9.1 should be reinserted.
 - The Node B communication context id is removed from 9.1.6, 9.1.7, 9.1.9.
 - Section 7 should list procedures rather than messages.

Report from O&M ad hoc group.

- **567**: Question on link management function. **Decision**: Need further studies. Currently we keep the link management function but note that "The necessity of this in NBAP is FFS."

16.1 Study Items report and decision: Iub/1

In WG2, the PCH now terminated in CRNC. Study item closed.

16.2 List of procedures (including input from O&M ad hoc):

- **447** Logical O&M procedures. **Working assumption** taken: The cell is owned by the CRNC. Cell configuration data is transferred over Iub from CRNC to Node B.

Document proposal **agreed** with following changes:

- Clarified in Cell Setup that after the procedure, the state of the cell is defined, but no logical resources are yet available.
- All references to setup of Iub bearers with qaal2 are removed.
- **468** O&M related proposals. **Agreed** with following modifications.
 - 8.1.2: Title is Radio Resource Management. Text is removed (separate contribution required for text to be included.)
 - 8.1.3: Title is Iub Link Management. Add a note "The necessity of Link Management within the NBAP protocol is FFS."
 - 8.1.4: Title is Radio Network Measurements.
 - 8.1.5.1: The system information update procedure should still be a separate procedure and not under 8.1.5.
 - 8.1.6: Remove word "possible" in second paragraph.
 - 8.1.7 removed (to be covered under 8.1.2)
 - Procedures from tdoc 447 sorted under these subsections as follows: Common transport channel configuration procedures included in 8.1.1, Block resource and Restart procedures included in 8.1.2, Cell Setup/Delete included in 8.1.5, Node B failure included in 8.1.6.

Completeness of NBAP procedures:

Agreed that the set of procedures at the end of this meeting is complete with the following exceptions:

- Radio link failure from Node B is needed.
- A couple of procedures for Logical O&M are probably missing.
- Possibly special procedure for physical channel reconfiguration???
-

16.3 Procedure specifications

- **466** Add cause value to measurement termination message. **Agreed.**
- **448** Cell configuration procedures. Proposal **agreed** with following changes:
 - Change to "configure one cell" in Cell Setup procedure.
 - Change to "remove one cell" in cell delete procedure.
- **449** Parallell procedures. **Conclusion:** Considered to add complexity and thus not included in release 99 at this stage. Agreed to include in 25.831 as a working assumption. Benefits and details to be clarified.

16.4 Message contents

16.5 Other issues

- **514** O&M. **Conclusion:** Proposal not accepted. Node B function to identify the UE context is included in I3.05.

17 Iur Signalling transport (25.422) ;

540 Not treated in SWG.

18 Iub Signalling transport (25.432)

19 Iur/Iub Data transport + Transport network control plane

19.1 Iur/Iub DCH, transport layer (25.426)

19.2 Iub CCH, transport layer (25.434)

19.3 Iur CCH, transport layer (25.424),

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Annex D – Document Register

Number	Title	Source
R3-99415	25.401 v.1.0.1	Editor
R3-99416	25.410 v.0.1.1	Editor
R3-99417	25.420 v.0.1.1	Editor
R3-99418	25.430 v.0.1.1	Editor
R3-99419	25.442 v.0.0.1	Editor
R3-99420	25.413 v.1.0.1	Editor
R3-99421	25.423 v.1.0.1	Editor
R3-99422	25.433 v.1.0.1	Editor
R3-99423	25.415 v.0.1.1	Editor
R3-99424	25.425 v.0.1.1	Editor
R3-99425	25.435 v.0.1.1	Editor
R3-99426	25.427 v.0.1.1	Editor
R3-99427	25.931 v.1.0.1	Editor
R3-99428	25.832 v.2.0.1	Editor
R3-99429	30.531 v.0.1.1	Editor
R3-99430	25.831 v.0.0.1	Editor
R3-99431	I3.05 v.0.0.1	Editor
R3-99432	Draft Agenda	RAN3 Chairman
R3-99433	Status and Structure of I3.05	Mannesmann Mobilfunk
R3-99434	Implementation Specific O&M Transport	Mannesmann Mobilfunk
R3-99435	List of important O&M procedures	Mannesmann Mobilfunk
R3-99436	Support of automatic NodeB configuration	Mannesmann Mobilfunk
R3-99437	Principles of Data Retrieve at SRNS relocation and GSM/UMTS H/O in the IP domain	Alcatel
R3-99438	Sequence charts for user data retrieve at SRNS relocation in IP domain	Alcatel
R3-99439	Proposed RRC Connection Re-establishment Procedure	Fujitsu
R3-99440	Considerations on Implementation Specific O&M	T-Mobil
R3-99441	Draft Minutes of RAN WG3 meeting #3	Secretary
R3-99442	On O&M Requirements Clarification	Lucent Technologies & Motorola
R3-99443	Proposed changes to 25.430 UTRAN Iub General Aspects and Principles	Editor (Fujitsu)
R3-99444	Classical IP over ATM used in Iu for SVC	NEC Corporation
R3-99445	Paging procedure (Revision of R3-99357)	NEC Corporation
R3-99446	Relocation Detect Message in RANAP	NEC Corporation
R3-99447	Logical OAM NBAP procedures	Björn Ehrstedt (Ericsson)
R3-99448	NBAP Cell Configuration procedures	Björn Ehrstedt (Ericsson)
R3-99449	NBAP procedure inter-relation	Björn Ehrstedt (Ericsson)
R3-99450	Coordinated Dedicated Transport Channels (DCH)	Björn Ehrstedt (Ericsson)
R3-99451	Dedicated Channel Frame Protocol	Björn Ehrstedt (Ericsson)
R3-99452	Signalling for UL Outer Loop Power Control	Björn Ehrstedt (Ericsson)
R3-99453	HO UMTS <-> GPRS	Björn Ehrstedt (Ericsson)
R3-99454	Node Identification over Iu and Iur	Björn Ehrstedt (Ericsson)
R3-99455	RANAP Relocation procedure: Transparent elements	Björn Ehrstedt (Ericsson)
R3-99456	RANAP Error Indication procedure	Björn Ehrstedt (Ericsson)
R3-99457	Withdrawn	Björn Ehrstedt (Ericsson)
R3-99458	Initialisation procedure for Iu CS UP Protocol layer	Björn Ehrstedt (Ericsson)
R3-99459	Primitives used by the Iu CS UP Protocol layer	Björn Ehrstedt (Ericsson)
R3-99460	Concept Proposal for RAB Sub Flows	Björn Ehrstedt (Ericsson)
R3-99461	CN Type Indicator in paging message	Björn Ehrstedt (Ericsson)
R3-99462	25.415: Iu Interface UTRAN-CN User Plane Protocols, Version 0.1.2	(Ericsson)
R3-99463	Reply to LS from TSG RAN WG3 on the possibility of	Björn Ehrstedt (Ericsson)

Number	Title	Source
	having multi carrier cells	
R3-99464	Withdrawn	Björn Ehrstedt (Ericsson)
R3-99465	Contribution to I3.05 - Node B O&M Functional Description	Vodafone Ltd
R3-99466	Amendment to 'Measurement Termination Initiated by Node B' procedure (25.433)	Vodafone Ltd
R3-99467	1st Draft Agenda for Meeting#4 O&M Ad Hoc	Rapporteur
R3-99468	Proposed changes to 25.433 NBAP specification V1.0.1	Vodafone Ltd
R3-99469	Proposed changes to 15.430 UTRAN Iub General aspects and principles V0.1.1	Vodafone Ltd
R3-99470	Corrections to Synchronisation section in 25.401	Motorola
R3-99471	Comments on Tdoc 465 "Contribution to I3.05 - Node B O&M Functional Description"	Motorola
R3-99472	Utran Functions: Examples on Signalling Procedures (output from Kawasaki RAN WG3 meeting #3)	CSELT (Editor)
R3-99473	Utran Functions: Examples on Signalling Procedures	CSELT (Editor)
R3-99474	Handling abnormal conditions in UTRAN Interfaces	Nokia
R3-99475	Location Reporting Over Iu interface	Nokia
R3-99476	Relocation Failure RANAP procedure	Nokia
R3-99477	Relocation Preparation procedure	Nokia
R3-99478	Modifications to Relocation Resource Allocation	Nokia
R3-99479	Clarification of Binding ID usage	Siemens/Italtel
R3-99480	Classification of reconfiguration procedures	Siemens/Italtel
R3-99481	Inter RNS Hard Handover via Iur	Siemens/Italtel
R3-99482	SRNC Controlled Uncoordinated Physical Channel Reconfiguration	Siemens/Italtel
R3-99483	SRNC Controlled Coordinated Physical Channel Reconfiguration	Siemens/Italtel
R3-99484	Uncoordinated Transport Channel Reconfiguration	Siemens/Italtel
R3-99485	Coordinated Transport Channel Reconfiguration	Siemens/Italtel
R3-99486	Uncoordinated Radio Access Bearer Reconfiguration	Siemens/Italtel
R3-99487	Coordinated Radio Access Bearer Reconfiguration	Siemens/Italtel
R3-99488	RRC Connection Re-establishment - DCH Re-establishment	Siemens/Italtel
R3-99489	CRNC Controlled Physical Channel Reconfiguration	Siemens/Italtel
R3-99490	Radio Link Reconfiguration Required procedure	Siemens/Italtel
R3-99491	RRC Context Retrieval procedure	Siemens/Italtel
R3-99492	RRC Connection Re-establishment Notification procedure	Siemens/Italtel
R3-99493	CRNC Controlled Physical Channel Reconfiguration procedure	Siemens/Italtel
R3-99494	Proposal for a new TS " UTRAN synchronisation principles & delay requirements	Siemens/Italtel
R3-99495	Operation of UTRAN without user plane traffic over Iur	Siemens/Italtel
R3-99496	Implications of Shared Channel Concept in TDD on the Iub	Siemens/Italtel
R3-99497	Support of USCH on Iub	Siemens/Italtel
R3-99498	Study Item (ARC/3) Overall delay budget within the Access Stratum	Siemens/Italtel
R3-99499		Siemens/Italtel
R3-99500		Siemens/Italtel
R3-99501		Siemens/Italtel
R3-99502	Editorial changes for TS 25.413	editor (Nokia)
R3-99503	Message contents for the RANAP procedures	Nokia
R3-99504	Editorial changes for TS 25.401 V1.0.3 UTRAN Overall Description	Editor (Nortel)
R3-99505	Multiplexing of DCHs over the same transport bearer	Nortel Networks

Number	Title	Source
R3-99506	Iur Transport model for RACH and FACH	Nortel Networks
R3-99507		Nortel Networks
R3-99508	Node B O&M Functional Description: splitting between logical and implementation specific O&M	Nortel Networks
R3-99509	Concept proposal of Coordinated RAB's	Nortel Networks
R3-99510	Associating failures with UEs	NTT DoCoMo
R3-99511	Distributed implementation specific O&M architecture	NTT DoCoMo
R3-99512	Extension of distributed implementation specific O&M architecture	NTT DoCoMo
R3-99513	Implementation specific O&M information transfer on Iur	NTT DoCoMo
R3-99514	Implementation specific O&M information transfer on Iub	NTT DoCoMo
R3-99515	Usage of CCCH, DCCH or DTCH for Cell/URA Update; Consequences on UL & DL signalling Transfer RNSAP messages	Alcatel
R3-99516	Clarification on RNSAP procedures Load Information, Measurement Reporting and DL Power Control	Nokia
R3-99517	Basic structure of DCH FP frame	Nokia
R3-99518	Handling of discontinuous transmission in Iub/Iur dedicated channels	Nokia
R3-99519	URA Update in DRNC without SRNC relocation	Nokia
R3-99520	Iu transport, support of Address Resolution in PVC scenario	Nokia
R3-99521	Basic RANAP ASN.1 structure, Modules and General PDU definition	Nokia
R3-99522	Basic RNSAP ASN.1 structure, Modules and General PDU definition	Nokia
R3-99523	Basic NBAP ASN.1 structure, Modules and General PDU definition	Nokia
R3-99524	Liaison Statement on the Turbo-Charger Feasibility Study	TSG CN WG2
R3-99525	Liaison Statement on the UMTS Evolution of GTP	TSG-CN WG2
R3-99526	LS on 3GPP Call Set-up Requirements for Circuit Switched Multimedia Telephony Service	TSG-S4
R3-99527	LS on Report of the current status on terminal capabilities	TSG-T2
R3-99528	LS on ongoing work in T2 SWG5 - Multi-mode terminals	TSG T2
R3-99529	LS on Agreed changes to 23.20 on flexible use of Iu	TSG S2
R3-99530	Proposal for changes to 25.420 UTRAN Iur Interface:General Aspects & Principles	Editor (Lucent)
R3-99531	Inter RNS Hard Handover via Iur	InterDigital
R3-99532	Inter-Node B (Intra-RNS) Hard Handover	InterDigital
R3-99533	Intra-Node B Hard Handover	InterDigital
R3-99534	Inter RNS Hard Handover with switching in the CN	InterDigital
R3-99535	Time alignment of DL DCH data frames	Motorola
R3-99536		Motorola
R3-99537	Working Assumptions for Encoding Rules	Siemens AG
R3-99538	TS 25.411 v2.0.0 UTRAN Iu Interface Layer 1	Stawros Orkopoulos (Mannesmann Mobilfunk)
R3-99539	TS 25.412 v2.0.0 UTRAN Iu Interface Signalling Transport	Stawros Orkopoulos (Mannesmann Mobilfunk)
R3-99540	TS 25.422 v2.0.0 UTRAN Iur Interface Signalling Transport	Stawros Orkopoulos (Mannesmann

Number	Title	Source
		Mobilfunk)
R3-99541	LS from TSG SA WG2 to CN2 on Manifestations of Handover and SRNS Relocation	TSG SA WG2
R3-99542	LS from TSG SA WG2 to RAN3 on Manifestations of Handover and SRNS Relocation	TSG SA WG2
R3-99543	Liaison statement to RAN WG3 on common transport channel management over Iur	TSG RAN WG2
R3-99544	CR to 25.931 GSM/BSS to UMTS Handover	Telecom Modus
R3-99545		Telecom Modus
R3-99546	LS on the principles and the procedure to ensure packet data retrieve at SRN's relocation	RAN WG3
R3-99547	LS on the QoS technical report (TR23.907)	RAN WG2
R3-99548	Draft liaison statement to R3	S2
R3-99549	LS on IP Compression	SA WG2 #5
R3-99550	Liaison Statement on cell broadcast service in UMTS	SA WG2
R3-99551	Reply to liaison statement from RAN WG3 on support of DSCH on Iur	RAN WG2
R3-99552	General Comments to 03.13	Lucent Technologies
R3-99553	General Comments to 03.13	Lucent Technologies
R3-99554	General Comments to 03.13	Lucent Technologies
R3-99555	Editorial changes to UMTS 25.427 (Iur/Iub user plane protocol for DCH data streams v 0.1.1	Editor
R3-99556	Open Interfaces	GSM Association
R3-99557	Draft Technical Report; Turbo Charger	Nortel networks
R3-99558	Proposal of Liaison statement on Node identification over Iu & Iur	RAN WG3
R3-99559	Reply to liaison statement from RAN WG3 on Hybrid ARQ Type 11/111	RAN WG2
R3-99560	Reply to liaison statement from 3GPP TSG SA WG2 on cell broadcast service in UMTS	RAN WG3
R3-99561	Proposed LS on UE requirement to report OFF	Motorola
R3-99562	Proposal of Liaison statement on RAB sub flows concept and associated definitions	RAN WG3
R3-99563	25.303 UE functions and interlayer procedures in connected mode	Editor
R3-99564		
R3-99565	Extract from 25.303	RAN WG2
R3-99566	Meeting report from RAN WG3 O & M adhoc meeting #2	WG3 O & M ad hoc chairman
R3-99567	LS on clarification on use of IMA for Iub link management	WG3 O & M adhoc
R3-99568	Contribution to 13.05-node B O & M functional description	WG3 O & M adhoc
R3-99569	Proposal of response liaison on GTP evolution	RAN WG3
R3-99570	Liaison statement concerning paging coordination	BT/NEC
R3-99571	Proposed LS on turbo charger feasibility study	Nortel Networks
R3-99572	Liaison on cell configuration and management philosophy	Vodafone
R3-99573	Separate delivery of Transport blocks within a transport block set by MAC-d to L1.	RAN WG3
R3-99574		
R3-99575	25.410 v0.1.2	BT
R3-99576	High level principles for cell mobility and URA mobility management over Iur	Alcatel, Ericsson, Nokia, Nortel Networks
R3-99577	Proposed LS on principles on Uu protocol specifications	Chairman
R3-99578	Proposed LS on comments on QoS report	Chairman
R3-99579	Summary Iur/Iub SWG	Iub/Iur SWG Chairman

Number	Title	Source
R3-99580	Summary of Iu SWG	Iu SWG Chairman
R3-99581	Draft liaison reply to LS from RAN WG2 on support of DSCH on the Iur interface	Nokia
R3-99582	Draft liaison reply to LS from RAN WG2 on Asymmetric Transport Channel Configuration	NTT Do Co Mo
R3-99583	Clarification on RNSAP procedures needed for the support of Mobility and CCH over Iur	Nokia , Nortel Networks
R3-99584	Draft LS to TSG RAN WG2 on high level principles for cell mobility and URA mobility management over Iur	Nortel Networks