Source:	**RAN WG3 Chairman**
Title:	**Report from WG3 chairman to TSG RAN**
Document for:	**Discussion**
Agenda Item:	**5.3.1**

1.   GENERAL

Since the last TSG RAN, RAN WG3 has had two meetings, focusing on corrections and functional additions for R99. Around 190 CRs are presented for approval.

Most of the R99 open issues presented at RAN#8 have been solved. Besides these, there have been even more contributions to solve other issues. Nevertheless, there are still a few issues to correct, especially on Iur and Iub interfaces.

So far in 3GPP, there has been very much focus on specifying much new functionality in a short timeframe. From now on, we need to emphasize the quality aspects, i.e. continue to improve the quality of the R99 specifications, as well as work with higher quality requirements for the added functionality in future releases.

2.   ORGANISATION AND WORKPLAN

The following representatives have been appointed for WG3:
- WG3 chairman: Per Willars, Ericsson
- WG3 vice chairman: Jean-Marie Calmel, Nortel
- WG3 secretary: Carolyn Taylor, MCC

Most work has been done in the two subworking groups (SWGs):
- Iu SWG (Chairman: Atte Länsisalmi, Nokia)
- Iur/Iub SWG (Chairman: Per Willars, Ericsson)

Per Willars will resign as WG3 chairman and Iur/Iub SWG chairman after the RAN3#16 meeting. New officials will be elected at the RAN3#16 meeting. Candidates have been invited to post their candidature to the mail reflector at latest Friday the 6 October.

Meetings have been held and are planned on the following dates:

Meeting	Dates	Venue, host
WG3#14	*3 – 7 July, 2000*	*Finland, Nokia*
WG3#15	*21 – 25 August, 2000*	*Germany, Berlin, Siemens*
IP UTRAN ad hoc	27-29 September	Swindon, UK, Motorola
WG3#16	16 – 20 October, 2000	Windsor, UK, Nortel+BT+Vodafone+Motorola
Tentative IP UTRAN ad hoc	6 – 8 November	Paris, France, Alcatel
WG3#17	20 – 24 November, 2000	US, Motorola
TSG RAN#10	*6-8 December*	
WG3#18	15 – 19 January, 2001	
WG3#19	26 Feb – 2 March, 2001	
TSG RAN#11	*14 – 16 March, 2001*	
WG3#20	17 – 20 April, 2001	
WG3#21	21 – 25 May	Korea, Samsung

TSG RAN#12	*13 – 15 June, 2001*	
WG3#22	27 aug – 1 sept, 2001	
WG3#23	26 – 30 November, 2001	

3. GENERAL ISSUES FOR TSG RAN CONSIDERATION

3.1 General on R99 CR handling

Currently, corrections are included in RAN3 specifications in the most straightforward way, i.e. to just correct what was erroneous. This means that a new version of a signalling specification may not be backward compatible with the previous version, e.g. due to changes in the ASN.1 coding. At some point new CRs must consider the backward compatibility to the previous version of the spec. E.g. the extension mechanisms built into the protocol could be used instead of redefining an existing IE. Since the specs are supposed to already be "frozen", this could be considered as a "deepfreezing" of the specs.
 RAN3 agreed to ask the chairman to bring this issue to TSG RAN for discussion. Also, RAN3 agreed in general it is too early to deepfreeze RNSAP and NBAP, but that SABP and RANAP could be considered.
 A suggestion from the RAN3 chairman is to include a short analysis of the backward compatibility to the previous version of the spec on the CR cover page for all new CRs.

3.2 References to RAN4 specifications

RAN3 currently refers to RAN4 specifications for the mapping of measurement quantities to protocol parameter values. This implies that any change of the mapping table in RAN4 specifications may incur compatibility problems on the Iur and Iub interfaces, if the nodes on either side of the interface uses different versions of the RAN4 specifications. If a change is really needed, it must be coordinated with RAN3 to use the relevant extension mechanisms in the protocol to resolve backward compatibility. RAN3 asked the chairman to bring this issue for discussion to TSG RAN. One suggestion in RAN3 is to refer to dated references of the RAN4 specifications for mapping tables.

3.3 ITU submission

RAN3 has reviewed the proposed text for submission to ITU-R and provided comments to the ITU ad hoc in tdoc R3-002218.

4. R99 TSs AND TRs

Below the status of each document is summarised, together with a list of issues still not completed, i.e. corrections / clarifications will be needed.

4.1 Radio network layer specifications, General

25.401 UTRAN Overall Description
Rapporteur: Jean-Marie Calmel, Nortel
Agreed CRs: RP-000370

Solved issues:
- List of functions may still need some update and review
- Performance requirements missing (delay budget still open) – *chapter removed from 25.401.*

25.402 Synchronisation in UTRAN, stage 2
Rapporteur: Thomas Ulrich, Siemens
Agreed CRs: RP-000371

4.2 Radio network layer specifications, Iu

25.410 UTRAN Iu Interface: General Aspects and Principles
Rapporteur: Richard Townend, BT
Agreed CRs: none

25.413 UTRAN Iu interface RANAP signalling

Rapporteur: Jyrki Jussila, Nokia
Agreed CRs: RP-000373, RP-000374

New not completed issues:
- Potential problem: Limitations on RANAP message size when using MAP/TCAP as bearer over the E-interface in the CN

Solved issues:
- Message syntax clarification (add new type of Abstract Syntax error in 10.3)
- Handling of not supported procedure codes, criticality set to "reject": error indication or failure message?
- Handling of not–supported non-core functionality (procedure text + cause values)

25.415 UTRAN Iu interface user plane protocols
Rapporteur: Martin Israelsson, Ericsson
Agreed CRs: RP-000376

25.419 UTRAN Iu interface: Service Area Broadcast Protocol SABP
Rapporteur: Brendan McWilliams, Vodafone
Agreed CRs: RP-000377

29.108 Application of the Radio Access Network Application Part (RANAP) on the E-interface
Rapporteur: Alexander Vesely, Siemens
Ageed CRs: none

Still not completed issue:
- Stage 2 specification of subsequent intra MSC-B handover (GSM – UMTS). *This issue should be studied by N1 since N1 is responsible for the stage 2 specifications in the CN.*

4.3 Radio network layer specifications, Iur/Iub

25.420 UTRAN Iur Interface: General Aspects and Principles
Rapporteur: Babul Miah, Lucent
Agreed CRs: RP-000378

25.430   UTRAN Iub Interface: General Aspects and Principles
Rapporteur: Mick Wilson, Fujitsu
Agreed CRs: RP-000385

25.423   UTRAN Iur interface RNSAP signalling
Rapporteur: Göran Rune, Ericsson
Agreed CRs: RP-000379, RP-000380, RP-000381

New issues:
- Potential problem with message size limitations for RNSAP on CL SCCP

Solved issues:
- Is the DRNC required to group measurement reports when several node-B's are involved for SRNC initiated measurements ?
- Retention capabilities of a DRNC (what does this really mean; can the DRNC request release of RL's from SRNC?)?
- Handling of blocking in CRNC: how can it ensure that common/dedicated resources are freed ?
- How can the SRNC perform DL power control balancing if it is not aware of the power range set by the DRNC for each RL ?
- Cell_FACH to Cell_DCH in DRNS [FDD].
- Cell_DCH to URA_PCH, transfer of URA info without CRNTI.
- Knowledge of maximum DL power in the SRNC

25.433   UTRAN Iub interface NBAP signalling
Rapporteur: Sungho Choi, Samsung
Agreed CRs: RP-000386, RP-000387, RP-000388, RP-000389

Still not completed issues:
- Multiple TTI's on one RACH (definitions of RACH, PRACH partitions etc); - *Clarification from RAN2 requested (with LS).*

New issues:
- Segmentation of very large NBAP messages (working assumption: new protocol layer) – *This may require a new TS number!*
- Increased efficiency for large and frequent NBAP messages (e.g. preconfiguration solution)

Solved issues:
- Cause values e.g. for the Common procedures
- Resource Status Indication:sometimes ambiguous (e.g. can only 1 error be reported or cleared with 1 message or multiple)
- RACH measurement name, alignment with R1+R4.
- Selection of DSCH TFCI-2 signalling mode
- How many PCH's (FDD) are there in one cell ? – *Both WG3 and WG2 support multiple.*
- Minimum power level of a Node B
- Retention capabilities of a Node B
- Lost communication context / Reset procedure

Issues common for 25.423 and 25.433:

Still not completed issues:
- Error Cases/Error Handling details: timers for synchronised RL reconfiguration.
- Need text alignment with tabular format (e.g. handling of all optional elements) – *solved for NBAP but not RNSAP.*

New issues:
- Dated references to R4 mapping tables – *to avoid compatibility problems, the mapping tables must not change.*
- Compressed mode, handling of invalid patterns (TGPSI) (implement agreed principle)
- Preemption at admission control (Alignment to RANAP "preemptable" parameters, specify preemption behaviour, spare/not used priority values.)
- What is the criteria for including the SFN/CFN in the measurement report? Update measurement initiation & reporting procedure text accordingly.
- Implementation of narrowband TDD is unclear with respect to the dDMode parameter extensibility.
- Report periodicity for measurement reporting (currently labelled as a first working assumption – this should be updated or removed)

Solved issues:
- The need for extensibility of range need to be reviewed for each parameter – *CRs approved on mail reflector.*
- Compressed mode
- Message syntax clarification (add new type of Abstract Syntax error in 10.3)
- Handling of not supported procedure codes, criticality set to "reject": error indication or failure message?
- Handling of not–supported non-core functionality (procedure text + cause values)
- D-field size (only 1 bit supported in WG1 specs; IE in NBAP/RNSAP can probably be removed);
- Relation between UL interference included in RNSAP/NBAP RL_SETUP/ADD RESPONSE/FAILURE messages, and RSSI measurement (should be the same?)
- SIR error value when SIR target has changed in the middle of a measuring interval (specify averaging or indicate "value incorrect") ? – *RAN1 agreed to include the exact definition of this measurement.*
- How to resolve the inconsistency between WG1/2 and WG3 specs on uni-directional <-> bidirectional dedicated transport channels ? – *Agreed to stick to current definitions, i.e. WG3 keeps bidirectional DCHs.*
- Carrier power measurements in case of transmit diversity (should 2 values be provided) ? – *issue closed since it was solved in WG1.*

25.425   UTRAN Iur interface user plane protocols for Common Transport Channel data streams
Rapporteur: Nicolas Drevon, Alcatel
Agreed CRs: None

25.435   UTRAN Iub interface user plane protocols for Common Transport Channel data streams
Rapporteur: Jean-Marie Calmel, Nortel
Agreed CRs: RP-000391
Solved issue:
- Include DSCH TFCI-2 control frame; solve timing adjustment.

25.427   UTRAN Iur and Iub interface user plane protocols for DCH data streams
Rapporteur: Woonhee Hwang, Nokia
Agreed CRs: RP-000384
Solved:
- BER at UL DTX for TDD

- Solve timing adjustment problem of the DSCH TFCI-2 frame – *not needed.*

4.4 Transport layer specifications

25.411 UTRAN Iu interface Layer 1
Rapporteur: Achim von Brandt, Siemens

25.421   UTRAN Iur interface Layer 1
Rapporteur: Achim von Brandt, Siemens

25.431   UTRAN Iub interface Layer 1
Rapporteur: Achim von Brandt, Siemens

25.412 UTRAN Iu interface signalling transport
Rapporteur: Cheng-Hock Ng, NEC
Agreed CRs: RP-000372

25.422   UTRAN Iur interface signalling transport
Rapporteur: Babul Miah, Lucent

25.432   UTRAN Iub interface signalling transport
Rapporteur: Mick Wilson, Fujitsu

25.414 UTRAN Iu interface data transport & transport signalling
Rapporteur: Martin Israelsson, Ericsson
Agreed CRs: RP-000375
New issue:
- Diffserv codepoint clarifications to the PS domain

25.424   UTRAN Iur interface data transport & transport signalling for CCH data streams
Rapporteur: Nicolas Drevon, Alcatel
Agreed CRs: RP-000382

25.434   UTRAN Iub interface data transport & transport signalling for CCH data streams
Rapporteur: Håkan Persson, Telia
Agreed CRs: RP-000390

25.426   UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams
Rapporteur: Sami Kekki, Nokia
Agreed CRs: RP-000383
Solved:
- Clarification of AAL2 switching case

25.442   UTRAN Implementations specific O&M transport
Rapporteur: Stephan Recker, Mannesman

4.5 Technical reports

25.931   UTRAN Functions, examples on signalling procedures
Rapporteur: Enrico Scarrone, CSELT
Agreed CRs: RP-000392

25.932 Delay Budget within the Access Stratum
Rapporteur: Massimo Dell'Acqua, Siemens
Version 1.1.0: RP-000423 (cover sheet), RP-000424 (TR)
Substantial number of ad hoc meetings. Still not ready for approval. Major issues:
- Confirm / adjust simulation results based on updated network / traffic model
- Check processing delay assumptions, incl. delays in UE – *LS sent to RAN4 to ask for comments.*

25.832   Manifestations of handover and SRNS relocation

Rapporteur: Richard Townend, BT

25.831 TSG RAN WG3 Study Items for Future Releases
This TR is dormant.

4.6 Administrative documents

30.531   TSG RAN WG3 Work Plan and Study Items
Editor: Carolyn Taylor, MCC
Version 0.8.1: RP-000454

5   R00 WORK ITEMS

RAN3 has decided to create a TR for each Work Item, in order to:
1. Facilitate agreement of requirements and principles before entering detailed solutions, and
2. Have a placeholder for agreed specification text, until the R00 CRs are to be approved

In general, the time has been very limited in the Iur/Iub SWG for R00 items. In the Iu SWG, more time has been spent on R00 due to higher stability of the R99 Iu specifications.
There has been no assessment about realistic timeplans for the finalisation of the R00 work items.

5.1 Iu related work items, R3 leading

PS-domain handover for realtime services, TR25.936
First version of TR created, v0.1.0, RP-000452.

RAB QoS negotiation, TR25.946
First version of TR created, v0.1.0, RP-000435 (cover sheet), RP-000436 (TR)

5.2 Iu related work items, others leading

TrFO / TFO
No RAN3 specific progress to report. Progress of the joint workshops on TrFO is reported separately.

RAB support enhancements
No activity.

5.3 Iur/Iub related work items, R3 leading

RRM optimisation on Iur/Iub, TR25.935
First version of the TR agreed (skeleton), v0.1.0, RP-000429 (cover sheet), RP-000430 (TR)
a) Congestion handling of DCH
b) Procedure parallelism on Iub/Iur
c) DPC Rate Reduction in soft handover:
d) Introduction of common measurements over Iur for neighbouring cell load measurements
e) Extension of Radio Interface Parameters updating in the user plane
f) Separation of resource reservation and radio link activation
g) Triggering of common transport channel resources initiation procedure by DRNC

Low chiprate TDD option, Iur/Iub aspects, TR25.937
First version of the TR agreed, v0.1.0, RP-000431 (cover sheet), RP-000432 (TR)

5.4 Iur/Iub related work items, others leading

UE positioning in UTRA FDD
R2 leading. No activity in R3.

UE positioning in UTRA TDD
R2 leading. No activity in R3.

Improved support of inter-frequency/system measurements
R1 leading. No activity in R3.

Hybrid ARQ, TR25.837
R2 leading.
Initial discussions. First version of TR available (skeleton) , v0.1.0, RP-000417 (cover sheet), RP-000418 (TR)

Support for multiple CCTrCHs
R2 leading. No activity in R3.

Node B synchronisation for TDD (Iur/Iub aspects), TR25.838
R1 leading.
Initial discussions. First version of TR available (skeleton) , v0.1.0, RP-000419 (cover sheet), RP-000420 (TR)

Terminal power saving features (Iur/Iub aspects), TR25.938
R1 leading.
Initial discussions. First version of TR available (skeleton) , v0.1.0, RP-000433 (cover sheet), RP-000434 (TR)

Improved common DL channel for CELL_FACH state
Study item, R2 leading. No activity in R3.

Candidate enhancements for RL performance (R1 leading)
Study item, R1 leading. No activity in R3.

USTS (Iur/Iub aspects), TR25.839
Study item, R1 leading.
Initial discussions. First version of TR available (skeleton) , v0.1.0, RP-000421 (cover sheet), RP-000422 (TR)

Highspeed DL packet access study
Study item, R2 leading. No activity in R3.

5.5 General UTRAN work items

QoS optimization for AAL2 connections (Q.2630 CS2), TR 25.934
Several contributions and some discussions.
Revised TR in v0.2.0 is presented for information. RP-000427 (cover sheet), RP-000428 (TR)
TSG RAN is requested to forward an LS to ITU requesting some clarifications.

IP transport in UTRAN, TR 25.933
Several contributions and some discussions. To have more time for the discussions, a separate ad hoc will take place.
An updated TR v0.2.0 is presented for information. RP-000425 (cover sheet), RP-000426 (TR)

6   COMING MEETINGS

Many corrections are still expected for R99, but at least on the next WG meeting, substantial time is expected to be available for R00 discussions. However, the priority will as usual be as follows:
1. Corrections to the R99 specifications. Target: good quality, unambiguous specifications.
2. Technical Reports for R99 (Delay budget report)
3. Work on agreed R00 work items
4. Discussion on potential additional R00 work items

7   FINAL WORDS

Since I will resign in October, I would like to take the opportunity to thank all of you and your colleagues in RAN WG3 for a good and productive cooperation during these intensive years of writing specifications. Thank you!