

Source: RAN WG3 Chairman
Title: Status Report RAN WG3, 1999-12-13
Document for: Discussion
Agenda Item: 5.4.1

1. GENERAL

Since the last TSG RAN, RAN WG3 has had two very productive (and intense) meetings. In addition, RAN 3 has had ad hoc meetings on messages, parameters and ASN.1 specifications, and produced vast amounts of procedure text proposals on the mail reflector. Thanks to this dedicated effort by the delegates, RAN3 can recommend approval of all its remaining TSs (three delayed TSs and four TSs planned for RAN#6) and a number of CRs on approved specifications.

The progress has thus been extremely good. However, it is important to note that the time has been limited for reviewing the updated specifications, and it is expected that clarifications and corrections are needed to improve the quality (to allow interoperability). This will be an important task for RAN 3 next year, in addition to the work on additional R99 functionality to be finalised to RAN#7, and to the work on R00.

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: Richard Townend, BT (during 1999), Carolyn Taylor, MCC (starting October)

WG3 has two subworking groups (SWGs):

- Iu SWG (Chairman: Atte Länsisalmi, Nokia)
- Iur/Iub SWG (Chairman: Per Willars, Ericsson)

The SWGs meet in parallel between opening and closing WG3 plenaries during a WG3 meeting.

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

Meeting	Dates	Venue, host
WG3#8	25-29 October, 1999	Abiko, Japan, NEC
WG3 Messages and ASN.1 ad hocs	22-24 November, 1999	Helsinki, Finland, Nokia
WG3#9	6-10 December, 1999	Paris, France, FT and Alcatel
WG3#10	24 – 28 January, 2000	Ericsson
WG3#11	28 February – 4 March, 2000	
WG3#12	10 – 14 April, 2000	
WG3#13	22 – 26 May, 2000	US, T1P1
WG3#14	26 – 30 June, 2000	Finland, Nokia
WG3#15	21 – 25 August, 2000	No host!
WG3#16	11 – 15 September, 2000	US, T1P1
WG3#17	23 – 27 October, 2000	No host!
WG3#18	27 November – 1 December, 2000	US, Motorola

3. THE R99 PRIORITISATION FOR RAN WG3

RAN3 has followed the guidance from TSG RAN#5 (RP-99574), and have put highest priority on finalising TSs for

“basic functionality” but good quality allowing interoperability.

TSG RAN is requested to confirm that the same prioritisation is valid also after RAN#6, i.e.:

1. Ensure completeness/correctness of R99 TSs for the “Basic” (RAN#6) functionality
2. Complete the R99 TSs with an identified list of features / functions for RAN#7
3. Update the not completed R99 TRs (alternatively, drop the TR)
4. Start the work on R00.

Furthermore, TSG RAN is requested to confirm which features / functions are to be included in R99 by RAN#7, and which functions shall be considered for R00.

The following features / functions were listed in RP-99574 as RAN#7 features. Unfortunately, RAN 3 has had no time so far to treat contributions on these topics.

Iu-related:

- Cell broadcast protocols between SMS-CBC and RNC (may require a new TS) (25.401, 25.413, 25.4xx)
- Iu time alignment (25.402, 25.415)
- SoLSA on Iu (25.401, 25.413)

Iur / Iub – related:

- Support for specific positioning methods (OTDOA, GPS-assisted) on Iur and Iub
- FACH power control on Iur (25.425)
- DSCH and USCH over Iur (25.423, 25.425)
- Load information on Iur (25.423)
- CPCH support on Iur and Iub (25.425, 25.435, 25.423, 25.433)

In addition, RAN3 has identified the following features/functions, which are not part of the RAN#6 TSs, as candidates for R99 RAN#7:

Iu-related:

- Tracing deactivation from CN (25.413)

Iur / Iub – related:

- Delayed activation at RL establishment (to solve a possible soft handover problem)
- Available capacity estimate in a drift cell
- DPC Rate Reduction in Soft Handover, DPC mode handling and switching
- TDD Neighbour cell measurement (pending feasibility of synchronisation scheme from R1)
- Reconfiguration of DL TPC step size
- Support for gated transmission on Iur and Iub
- Capacity modelling of Node B resources
- Possibility to perform soft handover during an active compressed mode pattern (chairmans note)

4. DOCUMENT STATUS

Below the status of each document is summarised, together with a list of issues still not completed (may not be exhaustive). For RAN#7, CRs are expected to clarify these issues (or remove the associated feature, if possible). In addition, a general consistency check towards other 3GPP specification may be needed.

4.1 Radio network layer specifications

25.401 UTRAN Overall Description, v3.0.0

Rapporteur: Pierre Lescuyer, Nortel

Agreed editorial (cat D) CRs (RP-99735):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99j36	agreed	25.401	006		Changes on 25.401; section 6	D	3.0.0	3.1.0

Agreed modification (cat C) and correction (cat F) CRs (RP-99736):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99j38	agreed	25.401	001	1	Clarification of O&M transport in 25.401	C	3.0.0	3.1.0
R3-99j48	agreed	25.401	004	1	Changes on 25.401, section 9	F	3.0.0	3.1.0
R3-99i24	agreed	25.401	007		Routing of NAS Messages in UTRAN	F	3.0.0	3.1.0

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99i87	agreed	25.401	008		Introduction of Service Area Identifier	C	3.0.0	3.1.0
R3-99j80	agreed	25.401	010		Revision 1 addition to UTRAN identifier description	C	3.0.0	3.1.0
R3-99j49	agreed	25.401			Change on U- and C-RNTI definitions	F	3.0.0	3.1.0

Agreed new feature (cat B) CRs (RP-99737):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99j34	agreed	25.401	005		Changes on 25.401; section 7.1 and 7.2 (resubmission)	B	3.0.0	3.1.0
R3-99k25	agreed	25.401	009		Service specific function for NAS messages	B	3.0.0	3.1.0

Not completed issues:

- List of functions may still need some update and review
- Performance requirements missing (delay budget still open)

25.402 Synchronisation in UTRAN, stage 2, v2.0.0 (RP-99739)

Rapporteur: Flavio Piolini, Italtel

Stable with minor outstanding issues. R3 recommends approval.

Not completed issues:

- Clarification of determination of OFF (minor)
- Requirements for Network Synchronisation

25.410 UTRAN Iu Interface: General Aspects and Principles, v3.0.0

Rapporteur: Richard Townend, BT

Agreed editorial (cat D) CRs (RP-99740):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99k01	agreed	25.410	001	1	Editorial Improvements & Clarifications to 25.410	D	3.0.0	3.1.0
R3-99k22	agreed	25.410	003		Cleanup of Iu Functions	D	3.0.0	3.1.0

Agreed modification (cat C) and correction (cat F) CRs (RP-99741):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99k00	agreed	25.410	002		SCCP GT Formats	F	3.0.0	3.1.0
R3-99i61	agreed	25.410	004		Q.2630.1 set-up and release on the Iu interface	F	3.0.0	3.1.0

25.420 UTRAN Iur Interface: General Aspects and Principles, v2.0.0 (RP-99752)

Rapporteur: Kiran Thakare, Telecom Modus

Stable. R3 recommends approval.

Not completed issues:

- Definitions chapter

25.430 UTRAN Iub Interface: General Aspects and Principles, v2.2.0 (RP-99762)

Rapporteur: Mick Wilson, Fujitsu

Stable. R3 recommends approval.

25.413 UTRAN Iu interface RANAP signalling, v2.1.0 (RP-99746)

Rapporteur: Jyrki Jussila, Nokia

Stable. R3 recommends approval.

It should be noted that due to the current RRC protocol, the RNCs have to interpret and use the NAS binding information, which is a break of the model of separating AS and NAS.

Not completed issues:

- Partial relocation (and handover) (solution in R3 exists, pending acknowledgement from other groups)

25.423 UTRAN Iur interface RNSAP signalling, v2.0.0 (RP-99755)

Rapporteur: Göran Rune, Ericsson

Stable. R3 recommends approval.

Not completed issues:

- Triggering of the Common Transport Channel Resources Initiation procedure (selection of S CCPCH)
- Crossing signalling between the Physical Channel Reconfiguration procedure and other procedures.
- Definition of DRX Parameter on Iur – possible problem with definition in the RRC specification
- The usage of the BLER in the DRNS is undefined in the procedures text.
- The handling of the *Allocation/Retention Priority* in the DRNS. Especially the “retention” mechanisms are undefined. Presently there are no means for pre-emption in a DRNS.
- The definition and usage of the *Mean Bit Rate* IE is not defined in the procedures.

25.433 UTRAN Iub interface NBAP signalling, v2.0.0 (RP-99764)

Rapporteur: Nobutaka Ishikawa, NTT Docomo

R3 recommends approval.

The protocol may conflict with assumptions in other WGs on the following issues:

- The protocol supports only one compressed mode pattern at a time (R1 assumes up to 8)
- The Node B may only originate full SIBs on BCCH and not elements within a SIB (check with R2)

Not completed issues:

- Decide whether mandatory or optional for Node B to support origination of certain SIBs on BCCH
- Node B capacity modelling.
- The use of TSTD and STTD parameters in cell setup
- The meaning of applying a measurement to “allRL”
- DSCH (TDD+FDD): signalling of physical channel parameters
- Alignment of the number of DSCHs supported to one UE (and how to signal TFI in case of >1)
- Syntax checking of the ASN.1 specification

Not completed issues, common for NBAP and RNSAP:

- Algorithm for DL reference power (FDD) (refer to R1 specifications)
- Meaning and usage of RLC Mode
- The handling of the Transaction ID and its scope of uniqueness.
- Version handling for the user plane (required mechanisms in the control plane)
- Usage of the *Cause* IE on message level and the *Cause* IE for a specific RL as in the RL RECONFIGURATION FAILURE message.
- Error Cases/Error Handling details (e.g. timers for synchronised RL reconfiguration etc)
- Definitions of the maximum values for the various “range bounds” in the tabular format.
- Alignment of ASN.1 description and coding to tabular format
- Review of criticality information in ASN.1
- Need text alignment with tabular format
- The need for extensibility of range of ALL parameters needs to be reviewed.

25.415 UTRAN Iu interface user plane protocols, v3.0.0

Rapporteur: Alain Maupin, Ericsson

Agreed editorial (cat D) CRs (RP-99748):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99i98	agreed	25.415	002		Editorial corrections and clarifications	D	3.0.0	3.1.0
R3-99i99	agreed	25.415	003		Addition of definitions for transcoder operation	D	3.0.0	3.1.0

Agreed modification (cat C) and correction (cat F) CRs (RP-99749):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99i97	agreed	25.415	001		Cleanup of coding section	C	3.0.0	3.1.0
R3-99f40	agreed	25.415	004		Header CRC check	C	3.0.0	3.1.0
R3-99g01	agreed	25.415	005		Initialisation procedure for UTRAN Iu UP protocol	C	3.0.0	3.1.0
R3-99j01	agreed	25.415	006		Direction of Rate control	F	3.0.0	3.1.0
R3-99k16	agreed	25.415	009		Frame octet padding	F	3.0.0	3.1.0

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99j87	agreed	25.415	011		Iu-UP frame Quality Classification	C	3.0.0	3.1.0

Agreed new feature (cat B) CRs (RP-99750):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99j96	agreed	25.415	007		Error event and error handling	B	3.0.0	3.1.0
R3-99j97	agreed	25.415	008		Iu UP protocol evolution	B	3.0.0	3.1.0
R3-99i85	agreed	25.415	010		Enhancement of Rate control	B	3.0.0	3.1.0

Not completed issues:

- Timing over Iu, including Time Alignment

25.425 UTRAN Iur interface user plane protocols for CCH data streams, v2.0.0 (RP-99757)

Rapporteur: Nicolas Drevon, Alcatel

Stable. R3 recommends approval.

Not completed issues:

- Error handling
- Extension mechanisms - compatibility principles

25.435 UTRAN Iub interface user plane protocols for CCH data streams, v3.0.0

Rapporteur: Jean-Marie Calmel, Nortel

Agreed editorial (cat D) CRs (RP-99765):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99i18	agreed	25.435	001		Editorial CR to 25.435	D	3.0.0	3.1.0
R3-99k10	agreed	25.435	006		Clarification of the use of the DL Transport Channels Synchronisation procedure.	D	3.0.0	3.1.0
R3-99h90	agreed	25.435	007		Editorial CR to 25.435	D	3.0.0	3.1.0

Agreed modification (cat C) and correction (cat F) CRs (RP-99766):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99j45	agreed	25.435	005	1	Alignment of the FDD and TDD operations	F	3.0.0	3.1.0

Not completed issues:

- Backward compatibility and definition of the compatibility information
- Support of reallocation of physical channel for TDD USCH+DSCH due to harmonisation of model with FDD

25.427 UTRAN Iur and Iub interface user plane protocols for DCH data streams, v3.0.0

Rapporteur: Fabio Longoni, Nokia

Agreed editorial (cat D) CRs (RP-99758):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99h89	agreed	25.427	004		Editorial Changes to 25.427	D	3.0.0	3.1.0
R3-99j10	agreed	25.427	007		Order of coordinated DCH in the Frame Protocol frame structure in 25.427	D	3.0.0	3.1.0

Agreed modification (cat C) and correction (cat F) CRs (RP-99759):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99h87	agreed	25.427	002		Location of quality estimate in payload	F	3.0.0	3.1.0
R3-99h88	agreed	25.427	003		DCH frame timing related issues	F	3.0.0	3.1.0
R3-99k26	agreed	25.427	006		Aligned definition of quality estimate	F	3.0.0	3.1.0

Agreed new feature (cat B) CRs (RP-99760):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99k03	agreed	25.427	005		Clarification of the selection of the QE (previous I02).	B	3.0.0	3.1.0

Not completed issues:

- Version handling and backward compatibility.

4.2 Transport layer specifications

25.411 UTRAN Iu interface Layer 1, v3.0.0

Rapporteur: Achim von Brandt, Siemens

Agreed editorial (cat D) CRs (RP-99742):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99k39	agreed	25.411	001	1	Precise wording in section 7.2 with respect to IMA.	D	3.0.0	3.1.0

Agreed modification (cat C) and correction (cat F) CRs (RP-99743):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99j40	agreed	25.411	002		Addition of references to ITU G.824 and G.825	F	3.0.0	3.1.0

25.421 UTRAN Iur interface Layer 1, v3.0.0

Rapporteur: Achim von Brandt, Siemens

25.431 UTRAN Iub interface Layer 1, v3.0.0

Rapporteur: Achim von Brandt, Siemens

25.412 UTRAN Iu interface signalling transport, v3.1.0

Rapporteur: Kiran Thakare, Telecom Modus

Agreed modification (cat C) and correction (cat F) CRs (RP-99744):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99i90	agreed	25.412	001		Removal of usage of SCCP Class 1 for RANAP	C	3.1.0	3.2.0

25.422 UTRAN Iur interface signalling transport, v3.1.0

Rapporteur: Kiran Thakare, Telecom Modus

Agreed modification (cat C) and correction (cat F) CRs (RP-99753):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99h92	agreed	25.422	001		Removal of usage of SCCP Class 1 for RNSAP	C	3.1.0	3.2.0

25.432 UTRAN Iub interface signalling transport, v3.1.0

Rapporteur: Mick Wilson, Fujitsu

25.414 UTRAN Iu interface data transport & transport signalling, v3.1.0

Rapporteur: David Comstock, Ericsson

Agreed modification (cat C) and correction (cat F) CRs (RP-99747):

Doc #	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R3-99k13	agreed	25.414	001	1	CR to 25.414 about the GTP port number and GTP signalling message	F	3.1.0	3.2.0

25.424 UTRAN Iur interface data transport & transport signalling for CCH data streams, v3.1.0

Rapporteur: Nicolas Drevon, Alcatel

25.434 UTRAN Iub interface data transport & transport signalling for CCH data streams, v3.1.0

Rapporteur: Magnus Aldén, telia

25.426 UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams, v3.1.0

Rapporteur: Sami Kekki, Nokia

25.442 UTRAN Implementations specific O&M transport, v3.0.0

Rapporteur: Stephan Recker, Mannesman

4.3 Technical reports

25.931 UTRAN Functions, examples on signalling procedures

Rapporteur: Enrico Scarrone, CSELT

Not presented to TSG RAN. There has been no meeting time for this, and it is not progressed since last TSG RAN. Substantial work to align with approved TSs.

25.832 Manifestations of handover and SRNS relocation, v3.0.0

Rapporteur: Richard Townend, BT

No CRs.

25.831 TSG RAN WG3 Study Items for Future Releases

Editor: Nicolas Drevon, Alcatel

Not presented to TSG RAN. No progress since last TSG RAN.

4.4 Administrative documents

30.531 TSG RAN WG3 Work Plan and Study Items, v 0.5.0

Editor: Björn Ehrstedt, Ericsson

5 OTHER ISSUES

TSG RAN#5 allocated the following actions to RAN 3:

- Vocabulary
Result: The editors have been requested to provide input. No meeting time has been allocated to this. The progress has been limited.
- Consideration of IS-41 core network
Result: RAN3 sees no impact on its specifications.
- Timeplan for year 2000
Result: RAN3 has had no time to discuss R00 issues. Therefore the only milestones considered are:
 - Corrections to approved specs primarily to March 2000
 - Addition of R99 features / functions to March 2000