Technical Specification Group, Radio Access Network
Kyongju, Korea, 6-8 October 1999

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Source: **RAN WG3 Chairman**

Title: **Status Report RAN WG3, 1999-09-29**

Document for: **Information and Decision**

Agenda Item: **6.4.1**

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1. GENERAL

Since the last TSG RAN, RAN WG3 has had its fifth, sixth and seventh meetings. Of the nine TSs planned for approval at TSG RAN#5, RAN3 recommends approval of six.
The progress is good. However, there are still many open issues and a lot of discussions on defining stage 2 behaviour for numerous functions. Also, much work remains to have good quality specifications (allowing interoperability) and to handle future extensions. According to the principle decided at TSG RAN in Fort Lauderdale, functions and features not necessary for the basic operation of UMTS should be considered to be moved from Release 99, in case they are not completed when a deadline is passed.

2. LIST OF WG3 DOCUMENTS

Iu	**Iur**	**Iub**
25.410 UTRAN Iu Interface: General Aspects and Principles	25.420 UTRAN Iur Interface: General Aspects and Principles	25.430 UTRAN Iub Interface: General Aspects and Principles
25.411 UTRAN Iu interface Layer 1	25.421 UTRAN Iur interface Layer 1	25.431 UTRAN Iub interface Layer 1
25.412 UTRAN Iu interface signalling transport	25.422 UTRAN Iur interface signalling transport	25.432 UTRAN Iub interface signalling transport
25.413 UTRAN Iu interface RANAP signalling	25.423 UTRAN Iur interface RNSAP signalling	25.433 UTRAN Iub interface NBAP signalling
25.414 UTRAN Iu interface data transport and transport signalling	25.424 UTRAN Iur interface data transport and transport signalling for CCH data streams	25.434 UTRAN Iub interface data transport and transport signalling for CCH data streams
25.415 UTRAN Iu interface CN-RAN user plane protocols	25.425 UTRAN Iur interface user plane protocols for CCH data streams	25.435 UTRAN Iub interface user plane protocols for CCH data streams
-	25.426 UTRAN Iur and Iub interface data transport and transport signalling for DCH data streams	
-	25.427 UTRAN Iur and Iub interface user plane protocol for DCH data streams	
25.442 UTRAN Implementations specific O&M transport		

Iu	Iur	Iub
25.401 UTRAN Overall Description		
25.931 UTRAN functions: Examples on signalling procedures		
25.832 Manifestations of handover and SRNS relocation		
30.531 WG3 Workplan and study items		
25.831 WG3 Study Items for Future Releases		
25.xxx Synchronisation in UTRAN		
I3.05 Node B O&M Functional Descriptions		

R3 has created a separate report describing “stage 2” synchronisation within the whole UTRAN, by taking chapter 9 out of 25.401, and requests a document number for that. I propose this is made a TS.
R3 is also working on the overall delay budget of UTRAN. This may later be proposed as a separate TR.

3. 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 parallell 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 O&M ad hoc	29-30 June, 1999	
WG3#5	5 – 9 July, 1999	Helsinki, Nokia
Joint meeting R2+R3+N1+S2	23 August 1999	Sophia Antipolis, ETSI
WG3#6	24 – 27 August, 1999	Sophia Antipolis, ETSI
WG3#7	20-24 September, 1999	Sophia Antipolis, ETSI
WG3#8	25-29 October , 1999	Abiko, Japan, NEC
WG3#9	6-10 December, 1999	Paris, France, FT and Alcatel
WG3#10	24 – 28 January, 2000	
WG3#11	28 February – 4 March, 2000	
WG3#12	10 – 14 april, 2000	
WG3#13	22 – 26 May, 2000	Offer from US operators
WG3#14	26 – 30 June, 2000	Finland, Nokia
WG3#15	21 – 25 august, 2000	
WG3#16	11 – 15 September, 2000	Offer from US operators
WG3#17	23 – 27 October, 2000	
WG3#18	27 November – 1 December, 2000	US, Motorola

4. NEED FOR PRIORITISATION

The objectives for the specification work of Release 99 comprises the following three aspects:

Level of features and functions
Quality of specification in terms of preciseness (allowing interoperability) and extension mechanisms
Timeplan

It is likely that R3 cannot complete the specifications, including all desired features and functions, with a good quality enabling interoperability, by December 1999. Therefore TSG RAN is requested to prioritise the objectives for R3.

5. MAJOR ITEMS NOT STUDIED

Open issues are listed per document further down. In addition, there are a few issues on overall UTRAN architecture that has not been adressed so far within RAN WG3. These include:

LCS / Positioning support on Iur/Iub.
Positioning may be requested over Iu and results delivered to the CN. However, there has been no discussion in R3 for support on Iub and Iur interfaces for positioning methods.

Cell broadcast service.
Only very limited discussions based on incoming LSs. The interface between CBC and RNC should in principle be within RAN WG3 scope (if CBC belongs to CN, this is part of Iu; if CBC belongs to UTRAN it is a new UTRAN-internal interface). However, R3 could not conclude on this issue.

Various L1 options
There may be options within L1 that would need support on Iur/Iub, but that has not been discussed at all (e.g. gated transmission, slow power control, etc).

6. DOCUMENT STATUS

Below the status of each document is summarised, together with a list of open issues still to be solved (not necessarily exhaustive). In addition, a general consistency check may still be needed.

6.1 Radio network layer specifications

25.401 UTRAN Overall Description, v2.0.0
Editor: Jean-Marie Calmel / Pierre Lescuyer, Nortel
Some open issues remain. R3 recommends approval of the document, even if the document was only very briefly reviewed at the last R3 meeting.
Open issues:
- List of functions may still need some update and review
- Performance requirements
- Support for positioning
- Support for Cell broadcast service

25.410 UTRAN Iu Interface: General Aspects and Principles, v2.0.0
Editor: Richard Townend, BT
R3 recommends approval.

25.420 UTRAN Iur Interface: General Aspects and Principles, v1.0.0
Editor: Kiran Thakare, Telecom Modus
Several open issues. R3 did not agree to recommend approval.
Open issues:
- DRNS logical model is incomplete
- Addressing scheme: Details, description, needed.
- Compatibility issue
- Mapping of frame protocols onto transport bearers
- GT addressing format
- Basic principle for DSCH over Iur
- Number of priority classes for FACH data streams

25.430 UTRAN Iub Interface: General Aspects and Principles, v2.0.0
Editor: Mick Wilson, Fujitsu
Quite stable but some work remains. R3 did not agree to recommend approval.
Open issues:
- Restructuring / rewriting of section 5 (function list and function split)
- Completion of the Node B logical model

25.413 UTRAN Iu interface RANAP signalling, v1.3.1

Editor: Jyrki Jussila, Nokia

Quite stable. Milestones in RAN3 workplan have been missed (functions and features should have been completed in August and everything else except coding in September). Much work to convert to specification status. To be approved at RAN#6.

Open issues:

- Error cases for some procedures remain to be defined
- Further details on compatibility handling,
- Specification text
- This specification needs to be improved to be more of a specification rather than the present descriptive text. This applies to all chapters of the specification.
- Services from Signalling Transport (Chapter 6)
- Details in the Relocation procedure
- Representation of areas in location reporting (cells, geographical coordinates, others?)
- SoLSA (related to area representation)
- Cell broadcast service (possible impact on Iu?)
- Parameter definitions and ranges.
- ASN.1 description and coding

25.423 UTRAN Iur interface RNSAP signalling, v1.4.0

Editor: Göran Rune, Ericsson

Not as stable as 25.413. Milestones in RAN3 workplan have been missed (functions and features should have been completed in August and everything else except coding in September). Much work to convert to specification status. To be approved at RAN#6.

Open issues:

- Compressed Mode
- Positioning
- TDD
- A lot of issues remains to be sorted out, e.g. parameters, differences between FDD and TDD, etc.
- DL Power Control
- Added as a consequence of the Tdocs A08 and 924: The handling of the DL power control is an additional open issue. (For instance, how shall the DL Reference Power be used?)
- Error Cases/Error Handling
- Timers
- Load Information (Load Information Request)
- Compatibility and Version handling
- Specification text
- This specification needs to be improved to be more of a specification rather than the present descriptive text. This applies to all chapters of the specification.
- Services from Signalling Transport (Chapter 6)
- Parameters for DSCH
- Parameter definitions and ranges.
- ASN.1 description and coding

25.433 UTRAN Iub interface NBAP signalling, v1.3.1

Editor: Nobutaka Ishikawa, NTT Docomo

Not as stable as 25.423. Milestones in RAN3 workplan have been missed (functions and features should have been completed in August and everything else except coding in September). Much work to convert to specification status. To be approved at RAN#6.

Open issues:

- Compressed Mode
- Positioning
- TDD:Some issues remains to be sorted out, e.g. parameters, differences between FDD and TDD, etc.
- DL Power Control: The handling of the DL power control is an additional open issue. (For instance, how shall the DL reference Power be used?)
- Error Cases/Error Handling
- Timers
- Compatibility and Version handling
- Specification text: This specification needs to be improved to be more of a specification rather than the present descriptive text.

Common procedures for resource handling ("logical O&M") unstable
Services from Signalling Transport (Chapter 6)
Parameters for CPCH
Parameter definitions and ranges
Cause parameters for most of response messages
System Information Update message parameters
SSDT
ASN.1 description and coding

25.415 UTRAN Iu interface user plane protocols, v2.0.0
Editor: Alain Maupin, Ericsson
Stable. R3 recommends approval. Title need to be updated.
Open issues:
Handling of Abnormal Event and Error Handling
Timing over Iu, including Time Alignment

25.425 UTRAN Iur interface user plane protocols for CCH data streams, v0.2.5
Editor: Nicolas Drevon, Alcatel
Not stable. R3 cannot recommend approval.
Open issues:
Error handling
Extension mechanisms – compatibility principles
The exact coding, length and value range of the Ies
The replacement of data frame length by a TFI-like IE in RACH/FACH data frames
FACH power control
DSCH flow control
FACH flow control procedure text
Mapping between transport bearers and DSCH/USCH
DSCH and USCH data frame structure
DSCH flow control frame structure
RACH/FACH and DSCH data transfer procedures
Format of user data blocks and indication of format over Iur

25.435 Iub interface user plane protocols for CCH data streams, v2.0.0
Editor: Jean-Marie Nortel
Stable. R3 recommends approval.

25.427 UTRAN Iur and
Editor: Fabio Longoni,
Stable. R3 recommends approval.
Open issues:
Version handling and backward compatibility.
Interaction between incorrect UL TFCI decoding and UL silent mode, and need of the UL normal mode.

Transport layer specifications

Iu interface Layer 1, v3.0.0
Editor: von Brandt, Siemens
CRs: None.

25.421 UTRAN
Editor: Achim Siemens
Agreed

25.431 UTRAN Iub interface Layer 1, v3.0.0
Achim von Brandt,
Agreed CRs: None

25.412 UTRAN Iu interface signalling transport, v3.0.0
Editor: Kiran Thakare, Telecom Modus
Agreed CRs:
ATM Protection Switching
SCTP clarification (being approved on mail)

25.422 UTRAN Iur interface signalling transport, v3.0.0
Editor: Kiran Thakare, Telecom Modus
Agreed CRs:
ATM Protection Switching
SCTP clarification (being approved on mail)

25.432 UTRAN Iub interface signalling transport, v3.0.0
Editor: Mick Wilson, Fujitsu
Agreed CRs:
SAAL-UNI clarification
ATM Protection Switching

25.414 UTRAN Iu interface data transport & transport signalling, v3.0.0
Editor: David Comstock, Ericsson
Agreed CRs:
001: Mapping of binding id
corrected GTP-U reference
clarification of classical IP over ATM
ATM Protection Switching

25.424 UTRAN Iur interface data transport & transport signalling for CCH data streams, v3.0.0
Editor: Nicolas Drevon, Alcatel
Agreed CRs:
001: Mapping of binding id
ATM Protection Switching

25.434 UTRAN Iub interface data transport & transport signalling for CCH data streams, v3.0.0
Editor: Magnus Aldén, telia
Agreed CRs:
001: Mapping of binding id
ATM Protection Switching

25.426 UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams, v3.0.0
Editor: Sammi Kekki, Nokia
Agreed CRs:
001: Mapping of binding id
ATM Protection Switching
Addition of SCTP for ALCAP (being approved on mail)

25.442 UTRAN Implementations specific O&M transport, v2.0.0
Editor: Stephan Recker, Mannesman
R3 recommends approval.

6.3 Technical reports

25.931 UTRAN Functions, examples on signalling procedures
Editor: Enrico Scarrone, CSELT
Very limited work recently. Need alignment with protocol specifications.

25.831 TSG RAN WG3 Study Items for Future Release
Editor: Nicolas Drevon, Alcatel
Very limited work on future releases. Some issues have been identified.
Parallelism in the execution of NBAP procedures.
Hybrid ARQ Type II / III techniques for RLC layer
Object-oriented Logical O&M

Iub Logical O&M

Capability Exchange

Support mode for variable SDU size in the Iu

25.832 Manifestations of handover and

Editor: Richard Townend, BT

Recent change to allow intersystem handover into UTRAN directly into

25.xxx Synchronisation in UTRAN, v0.0.x

Editor: Piolini, Italtel

view of synchronisation within UTRAN. This has relevance also to R1 and R2.

Open issues:

Complete

I3.05 NodeB O&M Functional Descriptions

DeLaTorre, Vodafone

document, not presented to TSG RAN. Very limited work recently. Need alignment with recent NBAP protocol specification

6.4

30.531 TSG RAN WG3 Work Plan and Study Items, v0.3.1

Editor: Ehrstedt, Ericsson