

**TSG-RAN Working Group 3 meeting #2**  
**Nynäshamn, Sweden, 15<sup>th</sup> - 19<sup>th</sup> March 1999**

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**3GPP**

# TR RAN I3.03 V0.0.1 (1999-02)

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*Technical Report*

## **3<sup>rd</sup> Generation Partnership Project (3GPP); Technical Specification Group (TSG) RAN**

### **WG3 Work Plan and Study Items**

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**3GPP**



Reference

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# Intellectual Property Rights

## Foreword

This Technical Report has been produced by the 3<sup>rd</sup> Generation Partnership Project, Technical Specification Group RAN WG3.

The contents of this TR may be subject to continuing work within the 3GPP and may change following formal TSG approval. Should the TSG modify the contents of this TR, it will be re-released with an identifying change of release date and an increase in version number as follows:

Version m.t.e

where:

- m indicates [major version number]
- x the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- y the third digit is incremented when editorial only changes have been incorporated into the specification.

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## 1 Scope

This document presents the workplan for TSG RAN WG3. It describes the work procedures of WG3, and the necessary milestones in order to reach the goal of completing the specifications by the end of 1999. The document also contains a list of all specifications to be produced by WG3, and a list of study items identified by WG3.

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## 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

[1]

[2]

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## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of the present document, the [following] terms and definitions [given in ... and the following] apply.

<defined term>: <definition>.

**example:** text used to clarify abstract rules by applying them literally.

### 3.2 Symbols

For the purposes of the present document, the following symbols apply:

<symbol>      <Explanation>

### 3.3 Abbreviations

<ACRONYM> <Explanation>

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## 4 General

### 4.1 Document version numbering

The specifications in the work plan are numbered according to a three digit numbering system. The first digit is increased when a new version is approved by RAN TSG. The second digit is increase when a new version is approved by WG3. The last digit is raised after every new version released by the editor. E.g. version 0.0.1 is the first version of the specification created by the editor. Version 0.1.0 is the first version approved by the WG and 1.0.0 is the first version approved by RAN TSG.

### 4.2 Meeting intensity

The meeting intensity of WG3 must fulfil at least two requirements:

- often enough to be able to produce the necessary specifications by the end of 1999,
- seldom enough to enable ad-hoc groups and/or subworking groups to work between the meetings.

To fulfil the above requirements the meeting intensity of WG3 will be roughly once every 6<sup>th</sup> week with a meeting duration of a complete week.

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## 5 Work procedures

TSG RAN WG3 has the overall responsibility of the specifications listed in ch. 7. In order to have the specifications ready by the end of 1999 WG3 will have the following split between the WG3 plenary meeting and the sub-working groups.

### 5.1 Plenary meeting

1. In the plenary meeting discussions and contributions in order to produce the following overall specifications (see ch. 7 for descriptions) should be treated:
  - S3.01: UTRAN Overall Description

- All General Aspects and Interface Principles specifications, i.e. S3.10, S3.20, S3.30
  - All specifications referring to existing standards, i.e. S3.11, S3.12, S3.14, S3.21, S3.22, S3.24, S3.31, S3.32, S3.34
  - The technical reports I3.01, I3.02 and I3.03
2. The work that is performed in the different sub-working groups will be co-ordinated in the plenary meeting. Decisions taken in the sub-working groups should be formally approved by the WG3 Plenary.
  3. It is the forum where each specification will be approved.

## 5.2 Sub-working groups (SWG)

TSG RAN WG3 contains the following permanent SWGs:

- Iu (responsible for Iu specifications S3.13 and S3.15, both user and control plane)
- Iur C-Plane and Iub C-Plane (responsible for RNSAP specification: S3.23 and the NBAP specification: S3.33)
- Iur/Iub U-Plane (responsible for the different FH protocols: S3.25, S3.26, S3.27, S3.35)

The SWGs are responsible for the technical contents of their specifications.

The SWGs provide full reports to the WG3 Plenary.

WG3 may create new or terminate existing SWGs.

## 5.3 Ad-hoc working groups

An ad-hoc group can be either relatively focused (e.g. transport technology), or of a broader scope (e.g. Handover procedures, network synchronisation).

An ad-hoc group has a clearly identified scope, with the identification of the expected results (Change Request on a specification, Technical Report, or more simply an input paper).

An ad-hoc group can be created at any time by WG3, and a rapporteur is appointed by WG3. The rapporteur is responsible for the reporting of the progress in the ad-hoc group to WG3. Ad-hoc groups can be split into smaller entities, merged, or terminated by WG3, depending on what is the most appropriate way to progress in WG3.

As a practice, ad-hoc groups should be utilised when an item has been firstly studied in WG3, but when it becomes evident that progress in the plenary WG3 will take too long or is not justified. Still, it is important that a first handling is made in WG3 so that companies can identify whether they want to be active in the ad-hoc group and the experts that they should need to devote to the ad-hoc group.

The duration and handling of an ad-hoc group depends on the importance of the task to be carried out:

- an ad-hoc group may last only a few days, and be carried in evening or parallel sessions of WG3 (WG3 could for example stop one afternoon).
- an ad-hoc group may last only between two WG3 meetings, and be conducted either via e-mail or in ad-hoc meetings.
- an ad-hoc group may last several months, and be conducted either by e-mail, ad-hoc meetings, etc, in which case reporting will be made at each occurring WG3.

The meetings and organisation of the ad-hoc group will have to be organised in a co-ordinated manner, with enough pre-meeting notice for example for ad-hoc sessions, conference call, etc. This is managed by the ad-hoc group rapporteur. The ad-hoc group rapporteur can typically also act as chairman for ad-hoc sessions.

In order to facilitate ad-hoc group work, and also a quick resolving of the key problems, it is encouraged that ad-hoc groups should focus on issues where the involved people is less than the WG3 meeting. Otherwise, the issue can be handled directly in WG3.

## 5.4 Meeting arrangements

WG3 meetings are one week long. The number of parallel sessions should be optimised to minimum that is needed for efficient progress. Also parallel sessions for groups that need very similar expertise should be avoided. Table 1 is an example of a meeting structure designed according to this principle:

Table 1: Example of WG3 meeting structure.

Monday	Tuesday		Wednesday		Thursday		Friday
Opening Plenary (09:00)	Iu	Iur/Iub U-Plane	Iu	Iur/Iub C-Plane	Iu	Iur/Iub C-Plane	Closing Plenary
Opening Plenary	Iu	Iur/Iub U-Plane	Iu	Iur/Iub C-Plane	Iu	Iur/Iub C-Plane	Closing Plenary (15:00)
(AdHocs )	(AdHocs )		(AdHocs )		(AdHocs )		

The group has two parallel sessions, and two SWGs share each session. The week is divided into two parts: Iur/Iub C-Plane discussions have been allocated more time (2 days) than the Iur/Iub U-Plane (1 day). This allows for Iub and Iur experts to attend both the U-Plane and C-plane sessions, and transport experts from Iur/Iub U-Plane session would also be available for Iu U-Plane discussions.

It must be possible to allocate time for the opening and closing plenaries in a flexible manner.

Draft agenda for the next meeting should be agreed upon in the closing plenary.

The first meeting of the sub-working groups are expected to take place at the third 3GPP TSG RAN WG3 meeting, i.e. in April 1999.

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## 6 Milestones

The work plan with milestones is shown in Table 2. Note, an 'X' in the table means that no more work is expected for the listed task. The release 99 deadline and the April 99 deadline is not shown in the work plan with specific version numbers of the specifications since it is not possible to predict what the version numbers would be. Nevertheless, there are deadlines April 99 and December 99.

Parallel work shall be possible, e.g. specification of RANAP procedures and IE coding may run concurrently.

Table 2: Work plan with milestones

Specification and tasks	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Overall Specifications</b>												
<b>RAN Overall Description</b>			0.1.0						1.0.0			
Specification structure			X									
<b>Iu Interface Specifications</b>												



<b>General aspects &amp; Principles of Iu interface between CN and RAN (function split, protocol structure)</b>			0.1.0						1.0.0			
Specification structure			X									
<b>Iu interface Layer 1</b>												
			0.1.0	1.0.0								
				X								
Specification structure			X									
<b>Iu interface signalling transport</b>												
			0.1.0	1.0.0								
				X								
Specification structure			X									
<b>Iu interface CN-RAN signalling</b>												
			0.1.0									1.0.0
Specification structure			X									
RANAP procedures (text and/or SDL)							X					
List of messages							X					
Message contents								X				
IE coding												X
<b>Iu interface data transport &amp; transport signalling</b>												
			0.1.0	1.0.0								
				X								
Specification structure			X									
<b>Iu interface CN-RAN user plane protocols</b>												
			0.1.0						1.0.0			
Specification structure			X									
List of messages				X								
Message contents							X					
IE coding									X			
<b>Iur Interface Specifications</b>												
<b>General aspects &amp; Principles of Iur interface (function split, protocol structure)</b>			0.1.0						1.0.0			
Specification structure			X									

<b>Iur interface Layer 1</b>			0.1.0	1.0.0								
				X								
Specification structure			X									
<b>Iur interface signalling transport</b>			0.1.0	1.0.0								
				X								
Specification structure			X									
<b>Iur interface RNC-RNC signalling</b>			0.1.0									1.0.0
Specification structure			X									
RNSAP procedures (text and/or SDL)							X					
List of messages							X					
Message contents									X			
IE coding												X
<b>Iur interface data transport &amp; transport signalling for CCH data streams</b>			0.1.0	1.0.0								
				X								
Specification structure			X									
<b>Iur interface user plane protocols for CCH data streams</b>			0.1.0						1.0.0			
Specification structure			X									
List of messages				X								
Message contents							X					
IE coding									X			
<b>Iur &amp; Iub interface data transport &amp; transport signalling for DCH data streams</b>			0.1.0	1.0.0								
				X								
Specification structure			X									
<b>Iur &amp; Iub interface user plane protocol for DCH data streams</b>			0.1.0						1.0.0			
Specification structure			X									
List of messages				X								

Message contents								X				
IE coding									X			
<b>Iub Specifications</b>												
<b>General aspects &amp; Principles of Iub interface (function split, protocol structure)</b>			0.1.0							1.0.0		
Specification structure			X									
<b>Iub interface Layer 1</b>												
			0.1.0	1.0.0								
Specification structure			X									
<b>Iub interface signalling transport</b>												
			0.1.0	1.0.0								
Specification structure			X									
<b>Iub interface RNC-NodeB signalling</b>												
			0.1.0									1.0.0
Specification structure			X									
NBAP procedures (text and/or SDL)								X				
List of messages								X				
Message contents									X			
IE coding												X
<b>Iub interface data transport &amp; transport signalling for CCH data streams</b>												
			0.1.0	1.0.0								
Specification structure			X									
<b>Iub interface RNC-NodeB user plane protocols for CCH data streams</b>												
			0.1.0							1.0.0		
Specification structure			X									
List of messages				X								
Message contents								X				
IE coding									X			

?

## 7 Specification structure

Table 3 lists the specifications to be produced by WG3, and a relevant document to be taken as basis when creating the first version. Additional specifications may be defined for O&M.

Table 3: Specifications for which WG3 has responsibility.

No.	Name	Scope	Relevant ETSI input	Editor
S3.01	RAN Overall Description	This specification describes the architecture and functions of RAN.	ZZ.01 "UTRAN Architecture Description"	Jean-Marie Calmel (Nortel)
S3.10	General aspects and principles of Iu interface between CN and RAN	Describes the objectives of the Iu interface including an overall description of the interface, and the function split and protocol structure over the interface.	zz.11 Description of Iu interface	Richard Townend (BT)
S3.11	Iu interface Layer 1	Specifies L1 standard(s) to be used on the Iu interface.	Based on: zz.11 Description of Iu interface	No volunteer
S3.12	Iu interface signalling transport	Specifies the data link and network layer standards to be used to carry the RANAP signalling protocol.	Based on: zz.11 Description of Iu interface	Seshaiah Ponnekanti (Telecom Modus/NEC)
S3.13	Iu interface CN-RAN signalling	Specifies the RANAP protocol for signalling between CN and RAN.	Based on: zz.11 Description of Iu interface	Jyrki Jussila (Nokia)
S3.14	Iu interface data transport & transport signalling	Specifies the standards for user data transport protocols and related signalling protocols to establish user-plane transport bearers.	Based on: zz.11 Description of Iu interface	David Comstock (Ericsson)
S3.15	Iu interface CN-RAN user plane protocols	Specifies RAN-specific user-plane protocols between CN and RAN (e.g. for inband signalling to a CODEC in the CN).	Based on: zz.11 Description of Iu interface	Alain Maupin (Ericsson)
S3.20	General aspects and principles of Iur interface	Describes the objectives of the Iur interface including an overall description of the interface, and the function split and protocol structure over the interface.	zz.12 Description of Iur interface	Kevin Hegerty (Lucent)
S3.21	Iur interface Layer 1	Specifies L1 standard(s) to be used on the Iur interface.	Based on: zz.12 Description of Iur interface	No volunteer
S3.22	Iur interface signalling transport	Specifies the data link and network layer standards to be used to carry the RNCAP signalling protocol.	Based on: zz.12 Description of Iur interface	Seshaiah Ponnekanti (Telecom Modus/NEC)
S3.23	Iur interface RNC-RNC signalling	Specifies the RNCAP protocol for signalling between RNC and RNC.	Based on: zz.12 Description of Iur interface	Björn Ehrstedt (Ericsson)
S3.24	Iur interface data transport & transport signalling for CCH data streams	Specifies the standards for user data transport protocols and related signalling protocols to establish user-plane transport bearers over Iur for Common Channel data streams.	Based on: zz.12 Description of Iur interface	Nicolas Drevon (Alcatel)

S3.25	Iur interface user plane protocols for CCH data streams	Specifies RAN-specific user-plane protocols between RNC and RNC for Common Channel data streams.	Based on: zz.12 Description of Iur interface	Nicolas Drevon (Alcatel)
S3.26	Iur & Iub interface data transport & transport signalling for DCH data streams	Specifies the standards for user data transport protocols and related signalling protocols to establish user-plane transport bearers over Iur and Iub for Dedicated Channel data streams.	Based on: zz.12 Description of Iur interface and zz.13 Description of Iub interface	Sami Kekki (Nokia)
S3.27	Iur & Iub interface user plane protocol for DCH data streams	Specifies RAN-specific user-plane protocols on Iur and Iub for Dedicated Channel data streams.	Based on: zz.12 Description of Iur interface and zz.13 Description of Iub interface	Fabio Longoni (Nokia)
S3.30	General aspects and principles of Iub interface	Describes the objectives of the Iub interface including an overall description of the interface, and the function split and protocol structure over the interface.	zz.13 Description of Iub interface	Mick Wilson (Fujitsu)
S3.31	Iub interface Layer 1	Specifies L1 standard(s) to be used on the Iub interface.	Based on: zz.13 Description of Iub interface	No volunteer
S3.32	Iub interface signalling transport	Specifies the standards to be used to carry the NBAP signalling protocol.	Based on: zz.13 Description of Iub interface	Mick Wilson (Fujitsu)
S3.33	Iub interface RNC-Node B signalling	Specifies the NBAP protocol for signalling between controlling RNC and Node B.	Based on: zz.13 Description of Iub interface	Nobutaka Ishikawa (NTT DoCoMo)
S3.34	Iub interface data transport & transport signalling for CCH data streams	Specifies the standards for user data transport protocols and related signalling protocols to establish user-plane transport bearers over Iub for Common Channel data streams.	Based on: zz.13 Description of Iub interface	Magnus Alde'n (Telia)
S3.35	Iub interface RNC-Node B user plane protocols for CCH data streams	Specifies RAN-specific user-plane protocols between controlling RNC and Node B for Common Channel data streams.	Based on: zz.13 Description of Iub interface	Jean-Marie Calmel (Nortel)

Table 4: Technical Reports for which WG3 has responsibility.

No.	Name	Scope	Relevant ETSI input	Editor
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I3.01	RAN Functions: Examples on Signalling Procedures	This document describes how the standardised procedures on different interfaces (Iu, Iur, Iub, Uu) can be combined to perform different system functions. The examples shown are not mandated to be implemented, and this is not necessarily a complete list of functions. It serves the purpose to guide the specification of each interface standard by identifying the procedures needed on each interface.	ZZ.02 "UTRAN Functions: Examples on Signalling Procedures"	Enrico Scarrone (CSELT)
I3.02	Manifestations of Handover and SRNS Relocation	This document describes the handover and SRNS Relocation scenarios from a UTRAN perspective.	ETSI SMG2-ARC EG document ,Manifestations of Handover and SRNS Relocation`.	Richard Townend (BT)
I3.03	TSG RAN WG3 Work Plan and Study Items	Describes the work procedures, milestones, specification structure and study items of RAN WG3.	Based on RAN WG3 tdocs 8, 9, 10 and 75.	Björn Ehrstedt (Ericsson)

## 8 Study items

### 8.1 Study items from the merging process, WG3 Meeting #1

Table 5: Study Items from the WG3 merging process.

#	Title	Responsible person	Contact from Partner	Status
ARC/1	CCH & DSCH in Iur Interface	Nicolas Drevon, Alcatel	Nobutaka Ishikawa, DoCoMo	open
ARC/2	Allocation of DL channelisation codes.	Seshaiah Ponnekanti, Telecom Modus	Takaaki Satoh, DoCoMo	open
SIG/1	Synchronisation at DCH Establishment	Fabio Longoni, Nokia	Nobutaka Ishikawa, DoCoMo	open
SIG/2	Radio Link setup/addition in the Iur Interface.			solved
Iu/1	Use of SS7 as a signalling bearer for Iu & Iur	Kevan Hobbs, Motorola	Cheng Hock, NEC	open
Iu/2	Signalling Channel Set up as a separate procedure.			solved
Iu/3	The SRNC Relocation procedure as a whole, especially the need for Proceeding 1 and Proceeding 2 messages. Also the triggering from the target RNS need to be studied.	Richard Townend, BT	Kalle Ahmavaara, Nokia	open
Iu/4	The triggering of SRNS relocation from the target RNS	Nobutaka Ishikawa, DoCoMo	Fabio Longoni, Nokia	open
Iu/5	Separate or combined set up, modify and release of RAB	Jean-Marie Calmel, Nortel	Cheng Hock, NEC	open
Iu/6	Ciphering algorithms	Cheng Hock, NEC	Michael Schopp, Siemens	open

Iu/7	Usage of abstract syntax (ASN.1 with CSN.1 as encoding rules, as recommended by SMG2) versus explicitly coding the transfer syntax (bit matrix, as proposed by TTC/ARIB).	Atte Lämsä, Nokia	Cheng Hock, NEC	open
Iur/1	Out-band or in-band Power Control (both UL and DL)	Björn Ehrstedt, Ericsson	Takaaki Satoh, DoCoMo	open
Iur/2	Separate reconfiguration trigger and reconfiguration procedure, or combined DRNC initiated DL reconfiguration procedure.	Kalle Ahmavaara, Nokia		open
Iur/3	Cell and URA Update need to be clarified.	Nicolas Drevon, Alcatel	Nobutaka Ishikawa, DoCoMo	open
Iur/4	It should be studied whether the parameters in the Examples on signalling procedures document should be presented in an Annex or with the procedures themselves.	Cheng Hock, NEC		open
Iub/1	Which Identity (e.g. Location Identity, URA id or a list of cells) to use in Paging procedure.	Takaaki Satoh, DoCoMo	Björn Ehrstedt, Ericsson	open

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## 9 History

<b>Document history</b>		
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0.0.1	Feb 1999	First draft
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