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Title: S3.20 UTRAN I_{ur} Interface: General Aspects and Principles v0.1.0
Document for:

TS S3.20 V0.1.0 (1999-04)

Technical Specification

3rd Generation Partnership Project (3GPP);
Technical Specification Group (TSG) RAN;

UTRAN I_{ur} Interface: General Aspects and Principles

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Reference
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Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (3GPP).
The contents of this TS are subject to continuing work within 3GPP and may change following formal TSG approval. Should the TSG modify the contents of this TS, 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.

Introduction

This clause is optional. If it exists, it is always the third unnumbered clause.
No text block identified

1 Scope

The present document…

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] S3.27 Iur & Iub Interface User Plane Protocol For DCH Data Streams

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.

3.2 Symbols

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

3.3 Abbreviations

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

4 General Aspects

4.1 UTRAN Architecture

[Editor´s note: This chapter should describe the UTRAN architecture from I_{ur} point of view. The RNS roles SRNS and DRNS are described to facilitate the description of functional split in chapter5.
In order to avoid inconsistency between documents, appropriate references should be included.]

4.2 I_{ur} Interface General Principles

Iur interface RNSAP procedures are divided into three modules as follows:

1. RNSAP Basic Mobility Procedures
2. RNSAP DCH Procedures
3. RNSAP Common Transport Channel Procedures

Basic Mobility Procedures module contains procedures used to handle the mobility within UTRAN. RNSAP Basic Mobility Procedures are mandatory.

DCH Procedures module contains procedures that are used to handle DCHs between two RNSs. If procedures from this module are not used in a specific Iur, then the usage of DCH traffic between corresponding RNSs is not possible. If this category is supported then the existence of Iur user plane for DCH is also assumed.

Common Transport Channel Procedures module contains procedures that are used to control common channel data streams over Iur interface. If the procedures within this module are not used on a specific Iur, then the common channel data can not be transported between corresponding UTRANs.

[Editors note:

RNSAP DCH Procedures will be standardised but whether they become mandatory or optional is FFS.

RNSAP Common Transport Channel Procedures will be standardised but whether they become mandatory or optional is FFS.]

4.3 I_{ur} Interface Specification Objectives

The I_{ur} interface specifications shall facilitate the following:

- Inter-connection of RNSs from different manufacturers;
- Support of continuation between RNSs of the UTRAN services offered via the Iu interface.
- Separation of I_{ur} interface Radio Network functionality and Transport Network functionality to facilitate introduction of future technology.

4.4 I_{ur} Interface Capabilities

The information transferred over the Iur reference point can be categorised as follows:

1. Radio application related signalling

The I_{ur} interface provides capability to support radio interface mobility between RNSs, of UEs having a connection with UTRAN. This capability includes the support of handover and radio resource handling between RNSs.

2. Iub/Iur DCH data streams

For a description of the Iur/Iub DCH data stream see Iur & Iub Interface User Plane Protocol for DCH Data Streams [1].

3. Iur RACH data streams

The contents of the RACH data streams is FFS.

4. Iur FACH data streams

The contents of the FACH data streams is FFS.

5. Iur DSCH data streams

The contents of the DSCH data streams is FFS.

The FAUSCH is FFS.

4.5 I_{ur} Interface Characteristics

[Editor´s note: This chapter should shortly describe the I_{ur} -Interface Characteristics.]

5 Functions of the I_{ur} Interface Protocols

[Editor´s note:. For information about the Iur interface functional division, see [appropriate specification].]

The list of functions on the Iur interface is the following:

1. Transport Network Management
2. Traffic management of Common Channels
   - URA Paging
3. Traffic Management of Dedicated Channels
   - Radio Link Setup/-Addition/-Deletion
   - Measurement Reporting
   - Dedicated Transport Channel Management
4. Traffic Management of Downlink Shared Channels

6 I_{ur} Interface Protocol Structure

[Editor´s note: The protocol structure figures have not been altered yet as this will be included in a combined editorial revision of S3.10, S3.20, S3.30 and S3.01].

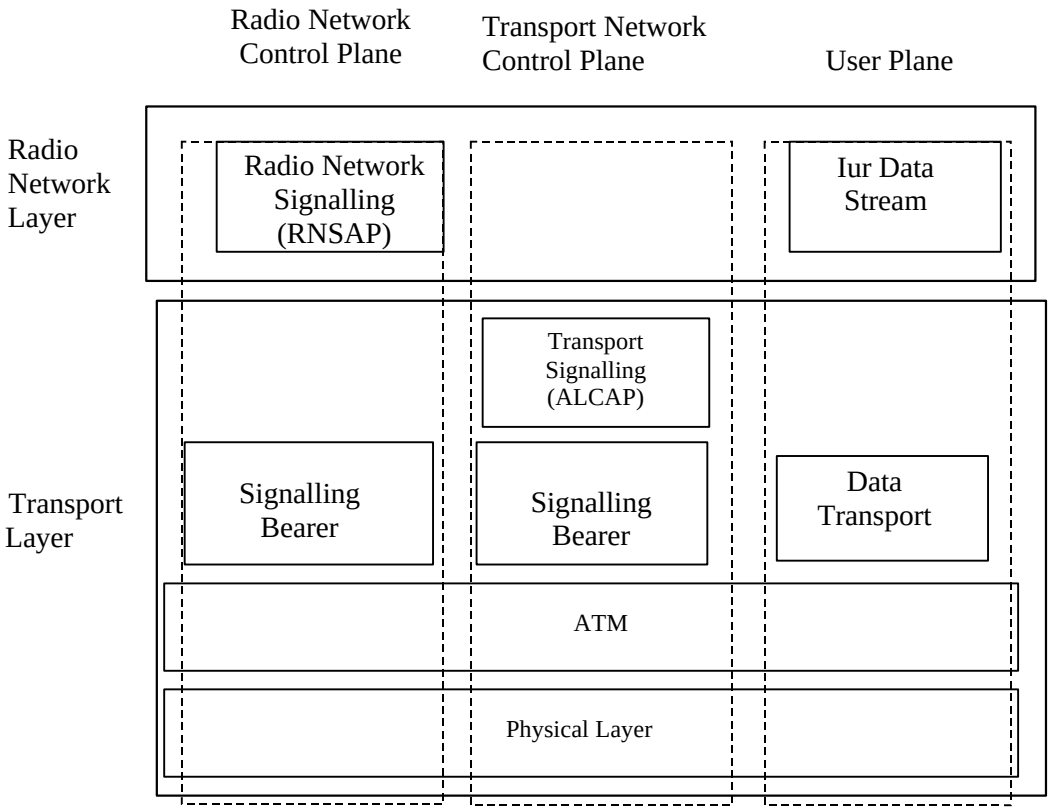

Figure 6-1. I_{ur} -Interface Protocol Structure

[Editor´s note: Study item Iu/1 from TTC/ARIB-ETSI merging: Use of SS7 as signalling bearer for Iu & Iur.]

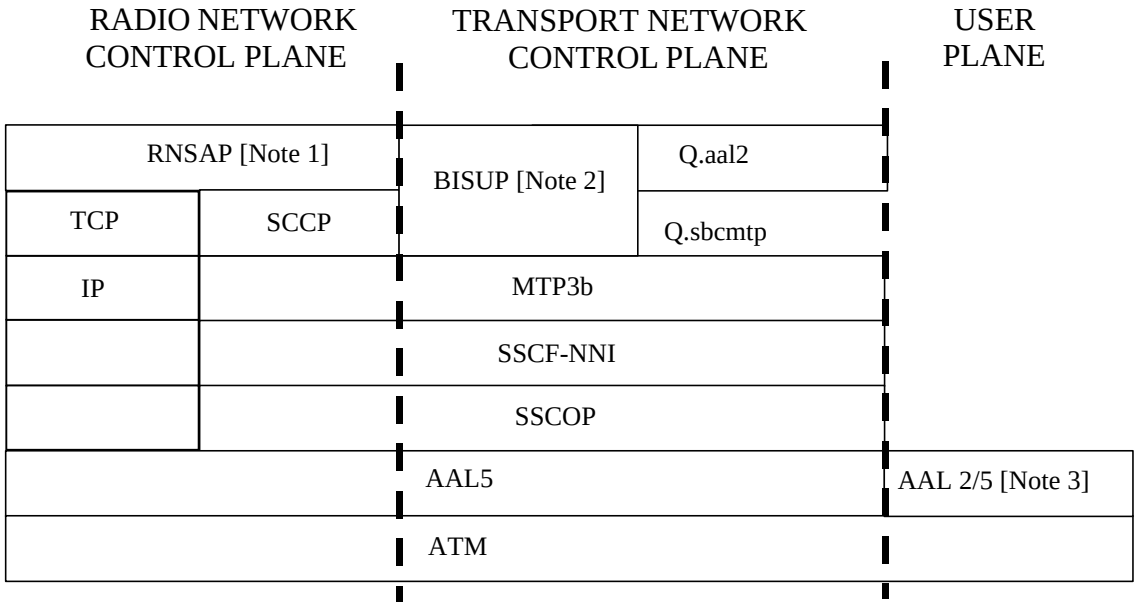

Figure 6-2. I_{ur} Interface Protocol Structure

[Note 1]: Two alternative signalling bearers for the Radio Network Control Plane are shown (TCP/IP/AAL5/ATM and SCCP/MTP3b/SSCF-NNI/SSCOP/AAL5/ATM). One of the two alternatives should be finally selected to be included in the standard.
[Note 2]: It is FFS which signaling protocol sets up AAL5 connection.
[Note 3]: It is FFS whether AAL5 is applied to User-plane.

7 Other I_{ur} Interface Specifications

8 Bibliography

The following material, though not specifically referenced in the body of the present document (or not publicly available), gives supporting information.

9 History

Document history		
V0.0.1	1999-02	Initial Specification Structure
V0.0.2	1999-02	Inclusion of complete text from sections 6, 7 and 8 of the baseline specification entitled “Merged Description of Iur Interface, Version 0.0.2”
V0.0.3	1999-03	Revised document based on approved contributions/decisions taken at WG3#2 Nynäshamn: Text in Chapter 2 of R3-99175 included in section 4.2 (text revised as per discussion). Editor’s note added stating that RNSAP DCH and CCH procedures shall be standardised but whether they will become mandatory or optional is FFS.
V0.0.4	1999-04	Minor editorial changes.
V0.0.5	1999-04	Changes arising from comments received via e-mail reflector: Replace ‘CCH’ with ‘Common Transport Channel’ as agreed at WG3#2 Revise figure 6.2 to clearly show the two alternatives currently being considered in WG3 for the Radio Network Control Plane Signalling Bearer (namely TCP/IP and SCCP/MTP3/SAAL-NNI.
V0.1.0	1999-04	Approved by WG3
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