to 6.3.1)

(3)     Move text 'The contents..' (to 6.3.2)

(4)     Move text 'The contents..' (to 6.3.3)

(5)     Move text 'The contents..' (to 6.3.4)

(6)     <mark>Delete text 'Iur FAUCH data streams..' – Not for R'99</mark>


6.      <mark>Include new chapter 'Iur interface protocols'</mark>

6.1     Include new section 'General'

        Include text & diagram (from 4.2.1) – with proposed modifications to both.

6.2     Include new section 'Radio Signalling protocol'

|      |                                                                                   |
|------|-----------------------------------------------------------------------------------|
|      | Include text (from 4.2.1) – with proposed modification.                           |
|      | Include text (from 4.2.2) – with minor editorial change                           |
|      | Include bullet list (from 4.4 (1))                                                 |
| 6.3  | Include new section 'User Plane Framing Protocols'                                 |
| 6.3.1| Include new sub-section & text 'Iub/Iur DCH..'                                     |
|      | Include bullet list (from 4.4 (2)) – with proposed modification.                  |
|      | Include new bullet list 'The contents of the Iur DCH control frame..'             |
| 6.3.2| Include new sub-section & text 'Iur RACH..'                                        |
| 6.3.3| Include new sub-section & text '                                                   |
| 6.3.4| Include new sub-section & text '                                                   |
| 6.4  | Include new section 'Mapping of framing protocols..'                              |
|      |                                                                                   |
| 10.8 | Include new sub-section & figure 'Summary of UTRAN Iur Interface..'               |

*Some additional comments have been made by the Author of  TS 25.423 'RNSAP signalling' (affecting Chapter 5), these have been also incorporated.*

In addition to reviewing the proposed changes, the editor asks delegates to pay particular attention to sections 5 & 7, checking content and where applicable propose updates.

# TS 25.420 V0.1.65 (1999-06)

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

**UTRAN Iur Interface: General Aspects and Principles**

**UMTS <spec>**

**3GPP**

Reference
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# Contents

# Intellectual Property Rights

# Foreword

This Technical Specification (TS) has been produced by the 3$^{rd}$ 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 is an introduction to the TSG RAN TS 25.42x series of UMTS Technical Specifications that define the Iur Interface. It is a logical interface for the interconnection of two Radio Network Controller (RNC) components of the UMTS Terrestrial Radio Access Network (UTRAN) for the UMTS system.

# 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]     3GPP TS 25.427:     UTRAN Iub/Iur Interface User Plane Protocol for DCH Data Streams

[2]     3GPP TS 25.425:     UTRAN Iur Interface User Plane Protocols for CCH 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:

AAL2        ATM Adaptation Layer type 2

AAL5        ATM Adaptation Layer type 5

ALCAP       Access Link Control Application Part

ATM         Asynchronous Transfer Mode

CRNC        Controlling Radio Network Controller

CTP         Common Transport Protocol

DCH         Dedicated Transport Channel

DL          Down-link

DRNC        Drift Radio Network Controller

| | |
|---|---|
| DRNS | Drift Radio Network Subsystem |
| DSCH | Down-link Shared Channel |
| FACH | Forward Access Channel |
| FAUCH | Fast Uplink Signalling Channel |
| IP | Internet Protocol |
| MAC | Medium Access Control |
| MTP3-B | Message Transfer Part level 3 (for Q.2140) |
| PLMN | Public Land Mobile Network |
| QoS | Quality of Service |
| RACH | Random Access Channel |
| RF | Radio Frequency |
| RNC | Radio Network Controller |
| RNS | Radio Network Subsystem |
| RNSAP | Radio Network Subsystem Application Part |
| RRC | Radio Resource Control |
| SCCP | Signalling Connection Control Part |
| SRNC | Serving Radio Network Controller |
| SRNS | Serving Radio Network Subsystem |
| SS7 | Signalling System $N^o$ 7 |
| SSCF-NNI | Service Specific Co-ordination Function – Network Node Interface |
| SSCOP | Service Specific Connection Oriented Protocol |
| STC | Signalling Transport Converter |
| UE | User Equipment |
| UL | Up-link |
| UMTS | Universal Mobile Telecommunication System |
| URA | UTRAN Registration Area |
| UTRAN | UMTS Terrestrial Radio Access Network |

# 4  General Aspects

## 4.1 UTRAN Architecture

*[Editor´s note: This chapter should describe the UTRAN architecture from I<sub>ur</sub> 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.]*

~~The Iur interface connects two RNCs.~~

The UTRAN consists of a set of Radio Network Subsystems (RNS) connected to the Core Network through multiple instances of the Iu reference point.  Each RNS consists of a Radio Network Controller (RNC) and one or more abstract entities currently called Node B.  Node Bs are connected to the RNC through the Iub interface.  The logical connection that exists between any two RNCs within the UTRAN is referred to as the Iur interface.

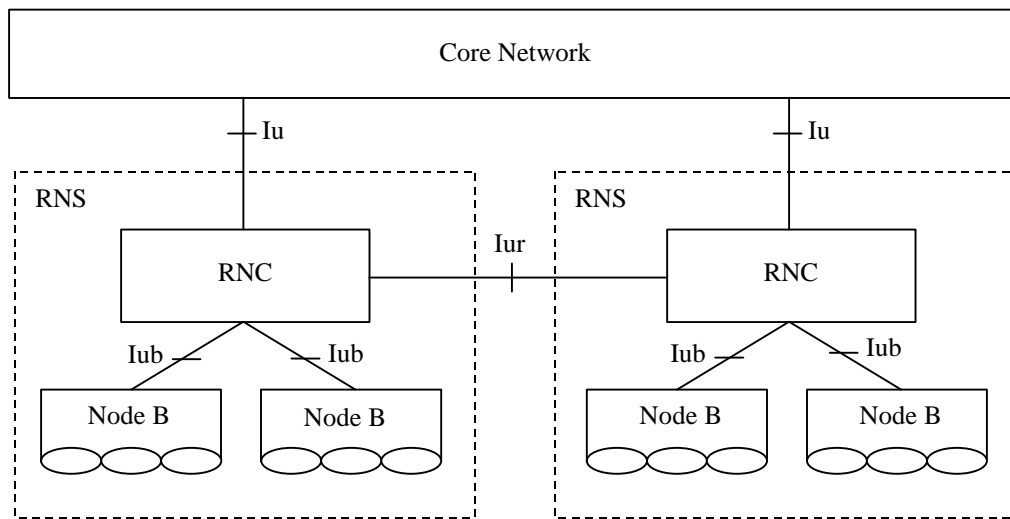The Iur interface within the UTRAN architecture is shown in Figure 1.



**Figure 1.  UTRAN Architecture**

*[Editor's note:  The following paragraph needs revision, proposals welcome.]*

*[Editor's note: The following text has been moved to section 4.2.1]*

~~From a logical stand point, the Iur interface is a point to point interface between the SRNS and all the DRNS, i.e. there is no deeper hierarchy of RNSs than the SRNS and DRNS. However, this point to point logical interface should be feasible even in the absence of a physical direct connection between the two RNSs.~~

## 4.2 I<sub>ur</sub> Interface General Principles

### 4.2.1 ~~General~~

The general principles for the specification of the Iur interface are as follows:

- ~~This~~ The Iur interface should be open.

- The Iur interface shall support ~~enables~~ the exchange of signalling information between two RNCs, in addition the interface may need to support one or more Iur ~~D~~data stream~~s may also exist~~.

- From a logical stand point, the Iur ~~interface~~ is a point to point interface between two RNCs within the UTRAN.~~the SRNS and all DRNS, i.e. there is no deeper hierarchy of RNSs than the SRNS and DRNS.  However, this~~ A point to point logical interface should be feasible even in the absence of a physical direct connection between the two RNC~~s~~s.

*[Editor's note: The following text has been moved to sub-section 6.2.1]*

The signalling information across the Iur interface is called Radio Network Subsystem Application Part (RNSAP).

The RNSAP is terminated at both ends of the Iur interface by an RNC.

*[Editor's note: The following text has been moved to section 6.1]*

There shall exist a clear separation between the Radio Network Layer and the Transport Layer. Therefore, the Data Transport resource and traffic handling are separated from the RNSAP (Figure 1.). This resource and traffic handling is controlled by the Transport Signalling. The Transport Signalling is carried by a Signalling Bearer over the Iur interface.
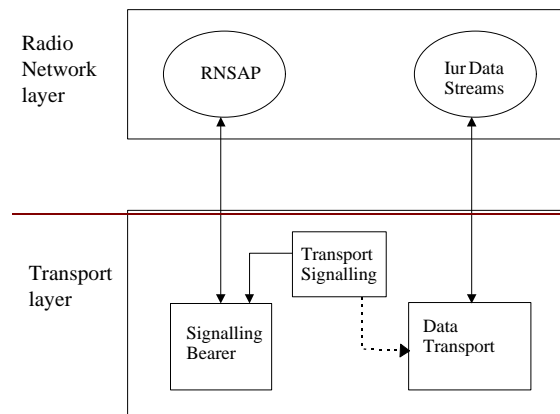


**Figure 1. Separation of RNSAP and transport over Iur**

## 4.2.2  RNSAP Procedure Modules

*[Editor's note;  As requested at RAN WG3 meeting #5, Helsinki, the following text has been modified to replace the term 'Common Procedures' with 'Global Procedures', and to reflect the decision taken that the standard shall not state whether DCH and Common Transport Channel Procedures are mandatory or not.  This editor's note is to be deleted at approval of the next version of this specification.]*

*[Editor's note: The following text has been moved to sub-section 6.2.2]*

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

1.RNSAP Basic Mobility Procedures

2.RNSAP DCH Procedures

3.RNSAP Common Transport Channel Procedures

4.RNSAP Global 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.

Common Transport Channel Procedures module contains procedures that are used to control common transport channel data streams over Iur interface..

The  Global Procedures module contains procedures that are not related to a specific UE. The procedures in this module are in contrast to the above modules involving two peer CRNCs.

## 4.3 I~ur~ Interface Specification Objectives

### 4.3.1 General

The I~ur~ interface specifications shall facilitate the following:

- Inter-connection of  RNCs ~~from~~ supplied by 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.

### 4.3.2 Addressing of RNSs over the Iur Interface

- For an RRC connection using a dedicated channel, the Iur standard shall allow the addition / deletion of radio links supported by cells belonging to any RNS within the PLMN.

- The specification of the Iur interface shall allow an RNC to address any other RNC within the PLMN for establishing a signalling bearer over Iur.

- The specification of the Iur interface shall allow an RNC to address any other RNC within the PLMN for establishing user data bearers for Iur data streams.

RNSAP shall allow different kinds of addressing schemes to be used for the signalling bearer.

## 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.

*[Editor's note: The following text has been moved to sub-section 6.2.2]*

> ~~Addition of  Cells in the DRNS which may lead or not to the addition of an new Iur data stream~~

> ~~Removal of Cells in the DRNS~~

> ~~Modify Radio Link characteristics~~

*~~Note:  This list of procedures is not the full list over Iur interface~~.*

2. Iub/Iur DCH data streams

The Iur interface provides the means for transport of uplink and downlink Iub/Iur DCH frames carrying user data and control information between SRNC (SRNS) and Node B (DRNS), via the CRNC (DRNS).

*[Editor's note: The following text has been moved to sub-section 6.3.1]*

~~The contents of the Iub/Iur DCH data streams include:~~

> ~~Transport Block Sets~~

> ~~Simple, commonly agreed Quality estimate~~

> ~~Synchronisation information~~

~~For a more detailed description of  Iur/Iub DCH data stream refer to 'Iur & Iub Interface User Plane Protocol for DCH Data Streams' [1].~~

3.   Iur RACH data streams

*[Editor's note: The following text has been moved to subsection 6.3.2]*

~~The contents of the RACH data streams are FFS.~~

4.   Iur FACH data streams

*[Editor's note: The following text has been moved to subsection 6.3.3]*

~~The contents of the FACH data streams are FFS.~~

5.   Iur DSCH data streams

*[Editor's note: The following text has been moved to subsection 6.3.4]*

~~The contents of the DSCH data streams are FFS.~~

*[Editor's note:  In line with the decision taken by RAN WG2 to not consider the FAUSCH channel for R'99, the editor proposes that the following text be removed from this specification.  This editor's note is to be deleted at approval of the next version of this specification].*

~~6.     Iur FAUSCH data streams~~

~~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<sub>ur</sub> Interface Protocols

## 5.1  Functional List

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

1.  Transport Network Management

2.  Traffic management of Common Transport Channels

*[Editor's note: New bullet covers those aspects of Common Transport management identified in Chapt 9.  This editor's note is to be deleted at approval of the next version of this document.]*

- Preparation of Common Transport Channel resources

*[Editor's note: Paging takes place at URA & Cell level – therefore make bullet point more generic.  This editor's note is to be deleted at approval of the next version of this document.]*

- URA Paging

3.  Traffic Management of Dedicated Transport Channels

- Radio Link Setup/-Addition/-Deletion

- Measurement Reporting

*[Editor's note: Delete following bullet (covered by first bullet point) .  This editor's note is to be deleted at approval of the next version of this document.]*

- Dedicated Transport Channel Management

4.  Traffic Management of Downlink Shared Channels

## 5.2  Functional Split over Iur

*Note:  This is only an initial list.*

### 5.2.1 Macro-diversity Combining/Splitting

DRNS may perform macro-diversity combining/splitting of data streams communicated via its cells. SRNS performs macro-diversity combining/splitting of Iur data streams received from/sent to DRNS(s), and data streams communicated via its own cells.

The internal DRNS handling of the macro-diversity combining (respectively splitting) of Iub (respectively Iur) DCH frames is controlled by the DRNS.

### 5.2.2 Control of Macro-diversity Combining/Splitting Topology

When requesting the addition of  a new cell for a UE-UTRAN connection, the RNC of the SRNS (i.e. the SRNC) can explicitly request to the RNC of the DRNS (i.e. the DRNC) a new Iur data stream, in which case the macro-diversity combining and splitting function within the DRNS is not used for that cell. Otherwise, the DRNS takes the decision whether macro-diversity combining and splitting function is used inside the DRNS for that cell i.e. whether a new Iur data stream shall be added or not.

### 5.2.3 Handling of DRNS Hardware Resources

Allocation and control of DRNS hardware resources, used for Iur data streams and radio interface transmission/reception in DRNS, is performed by DRNS.

## 5.2.4 Allocation of Downlink Channelisation Codes

Allocation of downlink channelisation codes of cells belonging to DRNS is performed in DRNS.

*[Editor's note: Note that this does not imply that the signalling of the code allocation to the UE must be done from the DRNS].*

## 5.2.5  UpLink Power Control

This group of functions controls the level of the uplink transmitted power in order to minimise uplink interference and keep the quality of the connections. If the connection involves both a SRNS and a DRNS the function UL Outer Loop Power Control (located in the SRNC) sets the target quality for the UL Inner Loop Power Control function (located in Node B). Additional quality information for the case when macro diversity combining is performed in DRNC is for further study.

*Note : some additional function is needed for resource negotiation between the SRNS and the DRNS across the Iur. This is FFS.*

## 5.2.6 Down-Link Power Control

*[Editor's note:  Changed due to agreement  at #4, Warwick (Tdoc 516).  This editor's note is to be deleted at approval of the next version of this document.]*

This group of functions controls the level of the downlink transmitted power in order to correct the downlink power drifting between several radio links. SRNC regularly (or under some algorithms) sends the target down link power range reference based on the measurement report from UE.

## 5.2.7 Admission Control

Admission control in a DRNC is implicitly invoked during radio link setup/modify.

Information on UL interference and DL power on cells controlled by the DRNC should be available across Iur.

Additional information exchanges between admission control functions located in different RNCs are for further study.

# 6  Iur Interface Protocols

## 6.1  General

There shall exist a clear separation between the Radio Network Layer and the Transport Layer. Therefore, the radio network signalling and Iur data streams are separated from the data transport resource and traffic handling as shown in are separated from the RNSAP Figure 2. This Data transport resource and traffic handling is controlled by the Transport Signalling. The Transport Signalling is carried by a Signalling Bearer over the Iur interface.
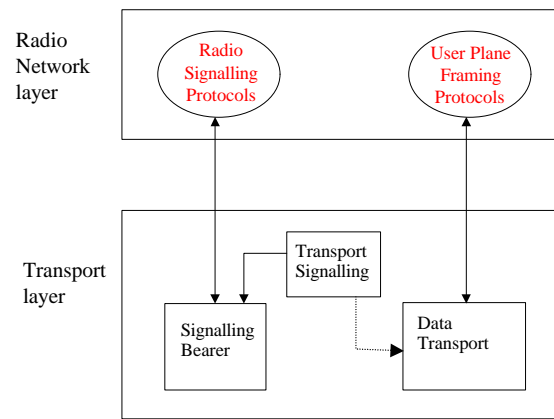


**Figure 2. Separation of Radio Network Protocols RNSAP and transport over Iur**

## 6.2  Radio Signalling Protocols

### 6.2.1  RNSAP Protocol

The signalling information across the Iur Interface is called Radio Network Subsystem Application Part (RNSAP).

The protocol responsible for providing signalling information across the Iur interface is called the Radio Network Subsystem Application Part (RNSAP).

The RNSAP is terminated by the two RNCs inter-connected via the Iur interface.  at both ends of the Iur interface by an RNC.

### 6.2.2  RNSAP Procedure Modules

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

1.  RNSAP Basic Mobility Procedures

2.  RNSAP DCH Procedures

3.  RNSAP Common Transport Channel Procedures

4.  RNSAP Global Procedures

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

The 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.

- Addition of  Radio Links in the DRNS which may or not lead to the addition of a new Iur data stream

- Removal of  Radio Links in the DRNS

- Modification of Radio Link characteristics

  *Note: This list of procedures is not the full list over Iur interface*

The Common Transport Channel Procedures module contains procedures that are used to control common transport channel data streams over Iur interface.

The Global Procedures module contains procedures that are not related to a specific UE. The procedures in this module are in contrast to the above modules involving two peer CRNCs.

## 6.3 User Plane Framing Protocols

## 6.3.1 Iub/Iur DCH Framing Protocol

There are two types of Iub/Iur DCH FP frames:

- DCH data frame

- DCH control frame

The contents of the Iub/Iur DCH data frame ~~streams~~ include:

- Transport Block Sets

- Simple, commonly agreed Quality estimate

- ~~Synchronisation information~~

The contents of the Iur DCH control frame include:

- Measurement reports

- Power control information

- Synchronisation information

For a more detailed description of the Iur/Iub DCH framing protocol refer to 'UTRAN Iur & Iub Interface User Plane Protocol for DCH Data Streams' [1].

## 6.3.2 Iur RACH Framing Protocol

The contents of the RACH data streams are FFS.

For a more detailed description of the Iur RACH framing protocol refer to 'UTRAN Iur Interface User Plane protocols for Common Transport Channel Data Streams' [2].

## 6.3.3 Iur FACH Framing Protocol

The contents of the FACH data streams are FFS.

For a more detailed description of the Iur FACH framing protocol refer to 'UTRAN Iur Interface User Plane protocols for Common Transport Channel Data Streams' [2].

## 6.3.4 Iur DSCH Framing Protocol

The contents of the DSCH data streams are FFS.

For a more detailed description of the Iur DSCH framing protocol refer to 'UTRAN Iur Interface User Plane protocols for Common Transport Channel Data Streams' [2].

## 6.4 Mapping of Framing Protocols onto transport bearers

[Editor's note: This sub-section should shortly describe how DCH, RACH/FACH & DSCH data streams map onto Iur transport bearers].

# 7  DRNS logical Model over Iur

*[Editor's note:  The DRNS logical Model needs to be updated.]*

## 7.1 Overview

The model in Figure 3. shows the Drift Radio Network System as seen from the SRNC. It is modelled as a «black box» with a set of Radio Links on the Uu side of the box and another set of User Plane access ports on the Iur side of the box. The Radio Links are connected to the Iur user ports via the internal transport mechanisms of the DRNS. Operations for controlling the connections between ports are sent from the SRNC to the DRNC via an Iur Control Plane port.
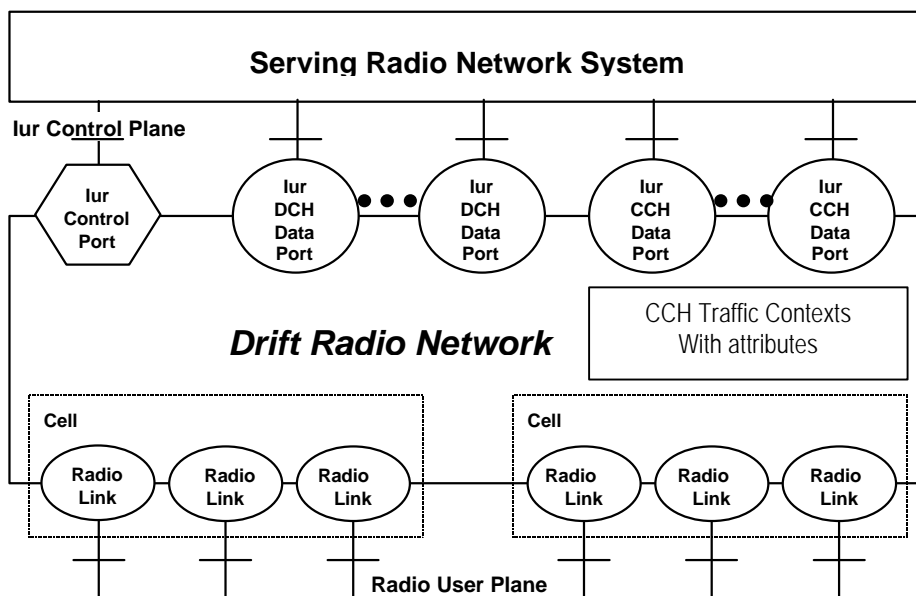


**Figure 3.  Drift RNS Logical Model**

*Note : This figure is the Radio Network layer view and not the transport layer one.*

## 7.2 Logical Model Elements

### 7.2.1 Radio Link

A Radio Link represents a User Plane access point on the UTRAN side of the Uu interface between the User Equipment and the UTRAN. It is associated with :

- a Cell identifier.

- a Radio Frequency Carrier identifier.

- a Physical Channel identifier (spreading code).

The semantics of a Radio Link include the following:

- It is created and destroyed by administrative procedures when a cell site and/or RF carrier is added to, or deleted from, the RNS.

- It can be attached to one and only one Iur User Port at any given time.

- Its resources are allocated and controlled by the DRNS.

## 7.2.2 Cell

A Cell is a collection of Radio Links found at a specific location. It is defined by:

- a Cell identifier.

The semantics of a Cell include the following:

- It is created and destroyed by administrative procedures when a cell site and/or RF carrier is added to, or deleted from, the RNS.

## 7.2.3 Iur DCH Data Port

One Iur DCH Data port represents one user plane transport bearer. One user plane transport bearer will carry only one DCH data stream except in the case of coordinated DCHs, in which case the data streams of all coordinated DCHs shall be multiplexed on one and the same user plane transport bearer.

The semantics of an Iur DCH Data Port include the following:

- It is created and destroyed by administrative procedures when transport facilities are added to, or deleted from, the Iur interface between the SRNS and DRNS. It can also be created and destroyed dynamically using dynamically setup transport bearers to add or remove transport facilities.

- It is assigned and released by the SRNC in reaction to requests for bearer services from the UE.

- It may be attached to one or more Radio Links. When attached to Radio Links in the downlink direction, it acts as a point-to-multipoint connection for diversity transmission. When attached to multiple Radio Links in the uplink direction, it acts as a multipoint-to-point connection for diversity reception.

- The transmit and receive diversity resources required to implement the point-to-multipoint and multipoint-to-point connections are controlled by the DRNS.

- The Iur DCH Data Stream emanating from the Iur DCH Data Port terminates in the SRNS connected to DRNS.

## 7.2.4 Iur CCH Data Port

*Note : It is FFS whether an Iur CCH Data Port will be associated to a transport bearer or if multiple Iur CCH Data ports can be multiplexed over the same transport bearer.*

## 7.2.5  Iur Control Port

An Iur Control Port represents the Control Plane access point on the Iur interface between the SRNS and the DRNS. It is defined by:

- a transport bearer channel identifier.

The semantics of an Iur Control Port include the following:

- It is created via administrative procedures when the Iur interface is created.

# 8  I$_{ur}$ Interface Protocol Structure

The Iur interface protocol architecture consists of two functional layers:

*1.*  Radio Network Layer, defines the procedures related to the interaction of two RNCs within a PLMN.  The radio network layer consists of a Radio Network Control Plane and a Radio Network User Plane.

*2.*  Transport layer, defines procedures for establishing physical connections between two RNCs within a PLMN.
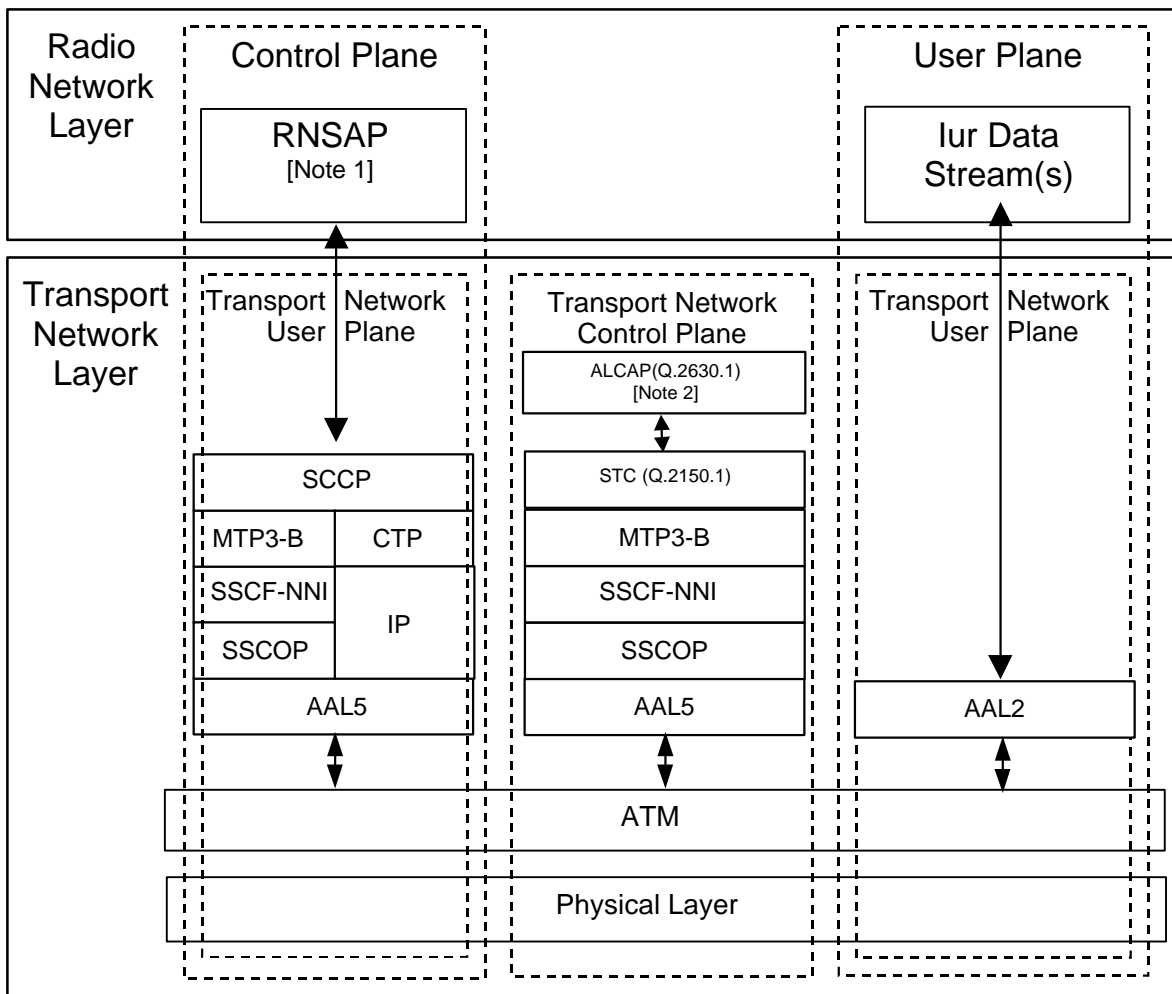


**Figure 4. I$_{ur}$ Interface Protocol Structure**

*[Editor's note:  In line with the decision taken to by TSG RAN to select alternative 3, alternatives 1 & 2 (signalling bearers based on SS7 only and IP only) have been removed.  This editor's note is to be deleted at approval of the next version of this specification].*

[Note 1]:  The standard allows operators to choose one out of two protocol suites for transport of SCCP messages.  In case CTP Protocol does not become ready, for reference, by September '99, TSG RAN WG3 will re-evaluate the protocol option of using CTP for release '99.

[Note 2]:  A signalling bearer solution for ALCAP based on CTP/IP maybe considered pending the outcome of RNSAP signalling bearer selection.

# 9 Handling of Common Transport Channel Data Streams over Iur Interface

## 9.1 Basic Principles

*Note: First the principles for handling RACH and FACH over Iur shall be settled. This is then, together with the DCH mechanisms, a starting point for defining DSCH support over Iur.*

- QoS: For RACH/FACH over Iur only best effort with priority handling is considered, due to complexity reasons on the Iur interface.

- In the case that UTRAN assigns RACH/FACH to the UE, the CRNC provides physical channel parameters.

- Regarding the level of interaction between MAC-c and MAC-d, the following is agreed:
  Need to minimise buffering in system
  Need to minimise the initial delay of the transmission over Iur for the first PDU
  Need to minimise signalling on Iur
  Need to reduce conditions of CRNC overload.

- No reservation mechanism is required for reservation of resources in the CRNC.

- When the UE changes cell within the CRNC, logically a new connection between MAC-d and the new MAC-c instance is established. Any flow control or similar mechanism over Iur must be reinitialised. The same transport bearer can be used.

- There is a frame protocol multiplexing of different UE on one transport bearer. One transport bearer can be used to connect multiple MAC-d instances in SRNC with multiple MAC-c instances in the CRNC. Whether to use one transport bearer per priority class, or a common, is FFS.

- Multiplexing of data streams for one UE is assumed to be done in MAC-d, but this needs WG2 confirmation. The relation to priority handling need to be clarified.

*Note: The above conclusions shall be sent to WG2 for comments. Also WG3 shall request WG2 for a more detailed model of the split of MAC-d and MAC-c.*

# 10  Other I$_{ur}$ Interface Specifications

*[Editor's note:  Text containing a brief summary of each specification to be added]*

## 10.1  UTRAN Iur Interface: Layer 1 (TS 25.421)

## 10.2  UTRAN Iur Interface: Signalling Transport (TS 25.422)

## 10.3  UTRAN Iur Interface: RNSAP Specification (TS 25.423)

## 10.4  UTRAN Iur Interface: Data Transport and Transport Signalling for Common Transport Channel Data Streams (TS 25.424)

## 10.5  UTRAN Iur Interface: User Plane Protocols for Common Transport Channel Data Streams (TS 25.425)

## 10.6  UTRAN Iur & Iub Interface: Data Transport and Transport Signalling for DCH Data Streams (TS 25.426)

## 10.7  UTRAN Iur & Iub Interface: User Plane Protocols for DCH Data Streams (TS 25.427)

## 10.8  Summary of UTRAN Iur Interface Technical Specifications

The relationship between the technical specifications that define the UTRAN Iur interface is shown in figure 5.
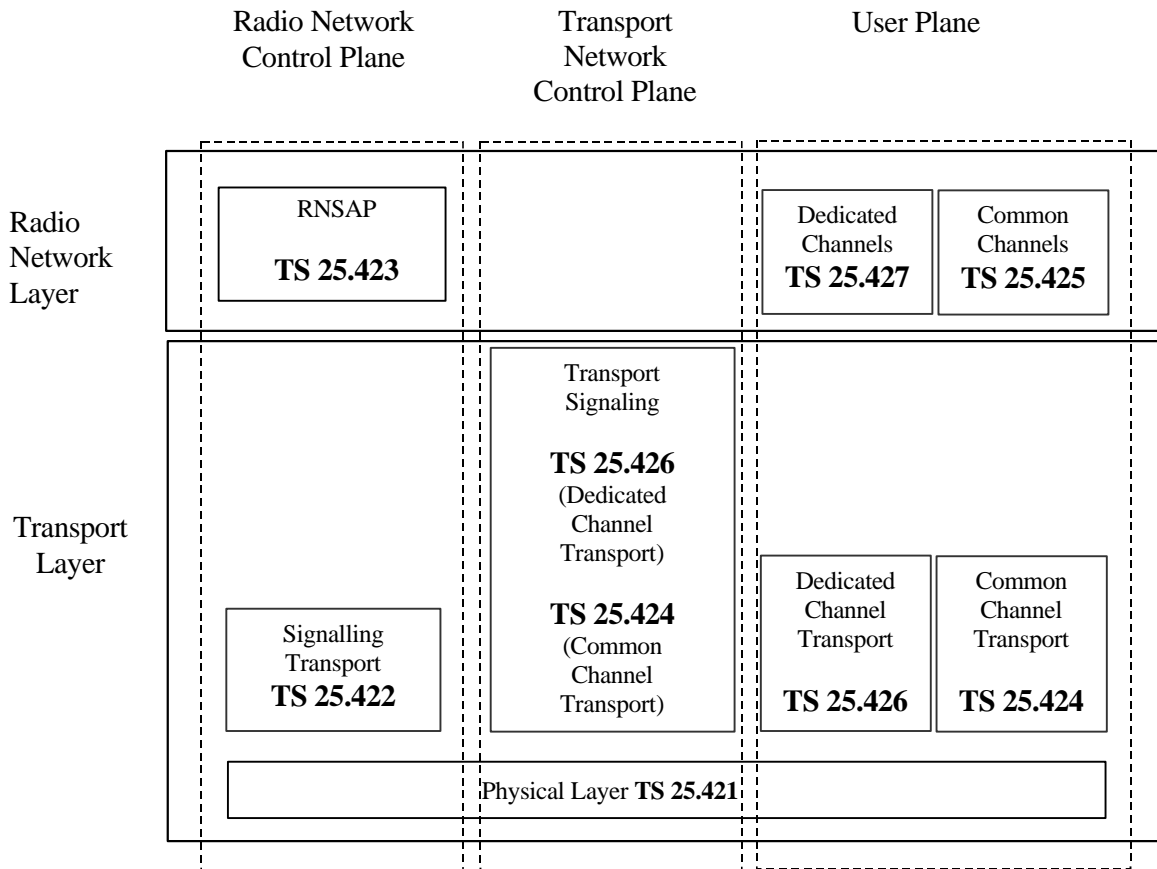


**Figure 5: Iub Interface Technical Specifications.**

# 11 Bibliography

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

# 12 Annex A (normative):  Document Stability Assessment

| Section | Content missing | Incomplete | Restructuring needed | Checking needed | Editorial work required | Finalisation needed | Almost stable | Stable |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | √ | | |
| 2 | √ | √ | | | | | | |
| 3 | | √ | | | | | | |
| 4 | | √ | | | | | | |
| 5 | | | | √ | | | | |
| 6 | | √ | | | | | | |
| 67 | | | | √ | | | | |
| 78 | | | | | | √ | | |
| 89 | | | | | | √ | | |
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# 13 History

<table>
<tr><td colspan="3" align="center"><strong>Document history</strong></td></tr>
<tr><td>V0.0.1</td><td>1999-02</td><td>Initial Specification Structure</td></tr>
<tr><td>V0.0.2</td><td>1999-02</td><td>Inclusion of complete text from sections 6, 7 and 8 of the baseline specification entitled "Merged Description of Iur Interface, Version 0.0.2"</td></tr>
<tr><td>V0.0.3</td><td>1999-03</td><td>Revised document based on approved contributions/decisions taken at WG3#2 Nynäshamn:<br><br>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.</td></tr>
<tr><td>V0.0.4</td><td>1999-04</td><td>Minor editorial changes.</td></tr>
<tr><td>V0.0.5</td><td>1999-04</td><td>Changes arising from comments received via e-mail reflector:<br><br>Replace 'CCH' with 'Common Transport Channel' as agreed at WG3#2<br><br>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.</td></tr>
<tr><td>V0.1.0</td><td>1999-04</td><td>Approved by WG3</td></tr>
<tr><td>V0.1.1</td><td>1999-05</td><td>The following changes have been made (in-line with the editor's proposal presented at the previous meeting [re R3-99320], but revised according to decisions taken at the meeting):<br><br><ul><li>Text added to 'Scope' (re chapter 1) with agreed modifications.</li><li>Revised Iur interface protocol diagram included (re chapter 7) with modifications (reflecting decisions taken at meeting on RNSAP signalling bearer, ALCAP and removal of AAL5 in the user plane (which was originally FFS).</li><li>Sub-sections referring to other related specifications included (re chapter 9).</li><li>Relevant sections of S3.01 (v0.1.0) related to Iur cut & paste throughout specification (excluding the information relating to Iur transport bearers originally proposed by editor to be included).</li></ul>The following changes have also been made:<br><br>A new chapter included containing agreed principles for handling of Common Transport Channels  (re chapter 8).<br><br>A status report has been included.<br><br>Minor editorial changes.</td></tr>
</table>

| V0.1.2 | 1999-05 | Editor's Proposal (Re R3-99530 [*same as v0.1.1+*]) |
|--------|---------|-----------------------------------------------------|
| | | Inclusion of text for Abbreviation section (Section 3.3). |
| | | Removal of editors' notes throughout TS, which were used in v0.1.1 to denote changes agreed at Kawasaki. |
| | | Addition of text to the beginning of chapter 7 introducing the Protocol Stack. |
| | | Removal of BISUP from Transport Network Control Plane of the Protocol Stack (fig 3). |
| | | Approved at TSG RAN WG3#4, Warwick-UK. |
| V0.1.3 | 1999-06 | Revised according to the decisions taken at TSG RAN WG3#4, Warwick-UK |
| | | Replacement of text in section 6.2.3 (re: R3-99450). |
| V0.1.4 | 1999-06 | *Editor's Proposal:* |
| | | • *Additional text in Sub-section 4.2.2 to address agreement reached at #4 (Warwick) for a new module covering Common Procedures.  This text has been taken from a proposal made by the Editor of 25.423 (re Tdoc 591).* |
| | | • Removal of some editor's notes |
| | | Approved at TSG RAN WG3#5, Helsinki-Finland. |
| V0.1.5 | 1999-7 | Revised according to decisions taken at TSG RAN Plenary#4, Miami-US: |
| | | • Removal of alternatives for RNSAP signalling bearer based on SS7 only and IP only solutions. |
| | | Revised according to decisions taken at TSG RAN WG3#5, Helsinki-Finland: |
| | | • Replace the term 'Common Procedures' with 'Global Procedures'. |
| | | • Remove statements regarding the mandatory/optional nature of 'DCH' and 'Common Transport Channel Procedures'. |
| | | • Alignment of Document Stability Assessment Table with the format used in TS 25.401. |
| | | |

| Editor for 3GPP RAN  25.420 is: |
|---|
| Kevin Hegerty<br>Lucent Technologies |
| Tel.:  +44 1793 883163<br>Fax : +44 1793 883815<br>Email : khegerty@lucent.com |
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