

**TSG-RAN WG3 meeting #6**  
**Sophia Antipolis, 24-27 August 1999**

*TSGR3#5(99)808*

**Agenda Item:** 13.1  
**Source:** Editor  
**Title:** 25.420 UTRAN I<sub>ur</sub> Interface: General Aspects and Principles  
**Document for:** Approval

---

Find attached v0.1.5 of TS 25.420 'I<sub>ur</sub> Interface: General Aspects & Principles'

**Revision marks show changes based on decisions at TSG RAN Plenary (#4, Miami – US) and the last TSG RAN WG3 meeting (#5, Helsinki – Finland).**

*TSG RAN Plenary #4:*

- Removal of alternatives for RNSAP signalling bearer based on SS7 only and IP only solutions.

*TSG RAN WG3#5:*

- 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.

The editor asks delegates to review particularly sections 5 & 6, checking content and where applicable propose updates for the next meeting in Sophia.

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

**UTRAN I<sub>ur</sub> Interface: General Aspects and Principles**

**UMTS <spec>**

**3GPP**

---

Reference

<Workitem> (<Shortfilename>.PDF)

---

Keywords

<keyword[, keyword]>

**3GPP**

---

Postal address

---

Office address

---

Internet

secretariat@3gpp.org  
Individual copies of this deliverable  
can be downloaded from  
<http://www.3gpp.org>

---

**Copyright Notification**

No part may be reproduced except as authorized by written permission.  
The copyright and the foregoing restriction extend to reproduction in all media.

©  
All rights reserved.

# Contents

1	Scope .....	6
2	References .....	6
3	Definitions, symbols and abbreviations .....	6
3.1	Definitions.....	6
3.2	Symbols.....	6
3.3	Abbreviations.....	6
4	General Aspects.....	8
4.1	UTRAN Architecture .....	8
4.2	I <sub>ur</sub> Interface General Principles .....	8
4.2.1	General .....	8
4.2.2	RNSAP Procedure Modules.....	9
4.3	I <sub>ur</sub> Interface Specification Objectives.....	9
4.3.1	General .....	9
4.3.2	Addressing of RNSs over the Iur Interface.....	9
4.4	I <sub>ur</sub> Interface Capabilities.....	10
4.5	I <sub>ur</sub> Interface Characteristics .....	10
5	Functions of the I <sub>ur</sub> Interface Protocols .....	11
5.1	Functional List .....	11
5.2	Functional Split over Iur .....	11
5.2.1	Macro-diversity Combining/Splitting.....	11
5.2.2	Control of Macro-diversity Combining/Splitting Topology .....	11
5.2.3	Handling of DRNS Hardware Resources .....	11
5.2.4	Allocation of Downlink Channelisation Codes .....	11
5.2.5	UpLink Power Control .....	12
5.2.6	Down-Link Power Control .....	12
5.2.7	Admission Control.....	12
6	DRNS logical Model over Iur.....	12
6.1	Overview.....	12
6.2	Logical Model Elements .....	13
6.2.1	Radio Link.....	13
6.2.2	Cell.....	13
6.2.3	Iur DCH Data Port.....	13
6.2.4	Iur CCH Data Port.....	14
6.2.5	Iur Control Port .....	14
7	I <sub>ur</sub> Interface Protocol Structure .....	14
8	Handling of Common Transport Channel Data Streams over Iur Interface.....	15
8.1	Basic Principles.....	15
9	Other I <sub>ur</sub> Interface Specifications.....	16
9.1	UTRAN Iur Interface: Layer 1 (TS 25.421) .....	16
9.2	UTRAN Iur Interface: Signalling Transport (TS 25.422).....	16
9.3	UTRAN Iur Interface: RNSAP Specification (TS 25.423).....	16
9.4	UTRAN Iur Interface: Data Transport and Transport Signalling for Common Transport Channel Data Streams (TS 25.424) .....	16
9.5	UTRAN Iur Interface: User Plane Protocols for Common Transport Channel Data Streams (TS 25.425) .....	16
9.6	UTRAN Iur & Iub Interface: Data Transport and Transport Signalling for DCH Data Streams (TS 25.426).....	16
9.7	UTRAN Iur & Iub Interface: User Plane Protocols for DCH Data Streams (TS 25.427).....	16
10	Bibliography .....	17
11	Annex A (normative):.....	18
Annex A	Document Stability Assessment Table .....	18

12 History ..... 23

---

# Intellectual Property Rights

---

---

## Foreword

This Technical Specification (TS) has been produced by the 3<sup>rd</sup> 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

---

## 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 <sup>o</sup> 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 chapter 5.]*

*In order to avoid inconsistency between documents, appropriate references should be included.]*

The I<sub>ur</sub> interface connects two RNCs.

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

From a logical stand point, the I<sub>ur</sub> 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

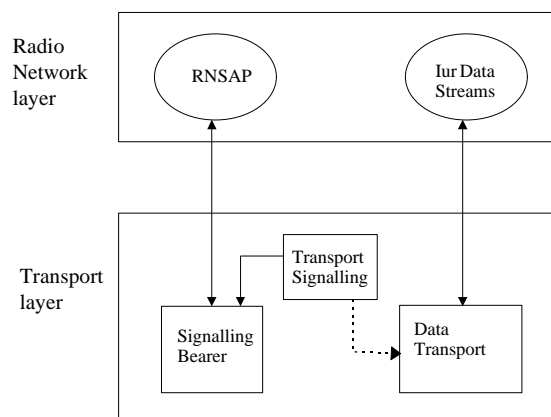
This interface should be open.

The I<sub>ur</sub> interface enables the exchange of signalling information between two RNCs, one or more I<sub>ur</sub> Data stream may also exist.

The signalling information across the I<sub>ur</sub> interface is called Radio Network Subsystem Application Part (RNSAP).

The RNSAP is terminated at both ends of the I<sub>ur</sub> interface by an RNC.

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 I<sub>ur</sub> 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.]*

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 ~~Common~~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. ~~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 transport channel data streams over Iur interface. ~~If the procedures within this module are not used on a specific Iur, then the common transport channel data can not be transported between corresponding RNSs.~~

*[Editor's note: As requested at RAN WG3 meeting #4, Warwick, the following text has been added to describe the new category for common procedures (for consistency this text has been taken from Tdoc591: TS 25.423 'Iur Interface RNSAP Signalling (v1.1.1)'—To be agreed). This editor's note is to be deleted at approval of the next version of this specification.]*

The ~~Common~~ 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.

*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<sub>ur</sub> Interface Specification Objectives

### 4.3.1 General

The I<sub>ur</sub> interface specifications shall facilitate the following:

- Inter-connection of RNCs from different manufacturers;
- Support of continuation between RNSs of the UTRAN services offered via the Iu interface.
- Separation of I<sub>ur</sub> 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 cells belonging to any RNS within the PLMN.

- The specification of the Iur interface shall allow an RNC to address any other RNC in 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.

*Note: Connectionless RNSAP over Iur is for further studies.*

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

## 4.4 I<sub>ur</sub> Interface Capabilities

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

### 1. Radio application related signalling

The I<sub>ur</sub> 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.

- 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 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 the Iur/Iub DCH data stream refer to 'Iur & Iub Interface User Plane Protocol for DCH Data Streams' [1].

### 3. Iur RACH data streams

The contents of the RACH data streams are FFS.

### 4. Iur FACH data streams

The contents of the FACH data streams are FFS.

### 5. Iur DSCH data streams

The contents of the DSCH data streams are FFS.

### 6. Iur FAUSCH data streams

The FAUSCH is FFS.

## 4.5 I<sub>ur</sub> Interface Characteristics

*[Editor's note: This chapter should shortly describe the I<sub>ur</sub>-Interface Characteristics.]*

---

## 5 Functions of the I<sub>ur</sub> Interface Protocols

### 5.1 Functional List

The list of functions on the I<sub>ur</sub> interface is the following:

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

### 5.2 Functional Split over I<sub>ur</sub>

*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 I<sub>ur</sub> 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 I<sub>ub</sub> (respectively I<sub>ur</sub>) 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 I<sub>ur</sub> 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 I<sub>ur</sub> data stream shall be added or not.

#### 5.2.3 Handling of DRNS Hardware Resources

Allocation and control of DRNS hardware resources, used for I<sub>ur</sub> 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

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 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 DRNS logical Model over Iur

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

### 6.1 Overview

The model in Figure 2. 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.

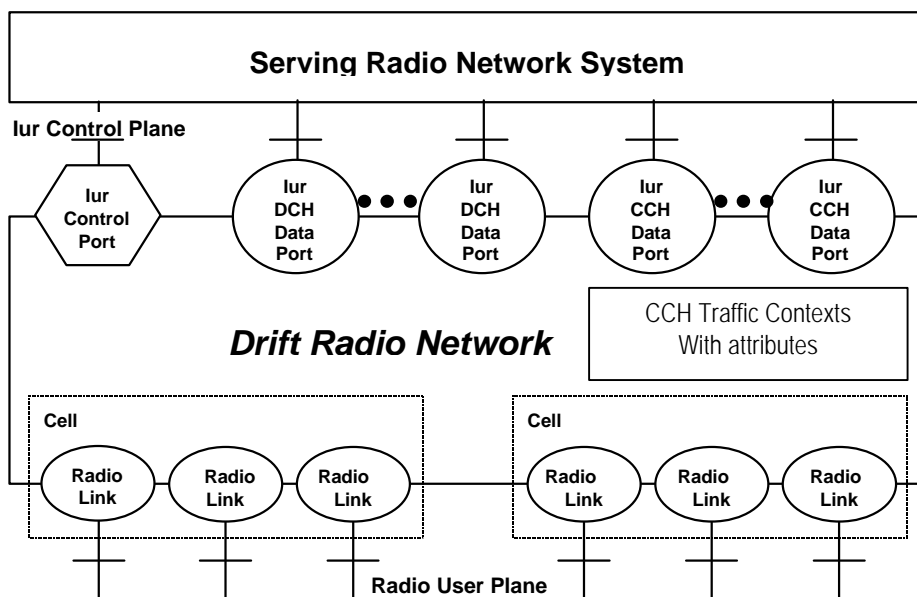


Figure 2. Drift RNS Logical Model

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

## 6.2 Logical Model Elements

### 6.2.1 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.

### 6.2.2 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.

### 6.2.3 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.

### 6.2.4 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.

### 6.2.5 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.

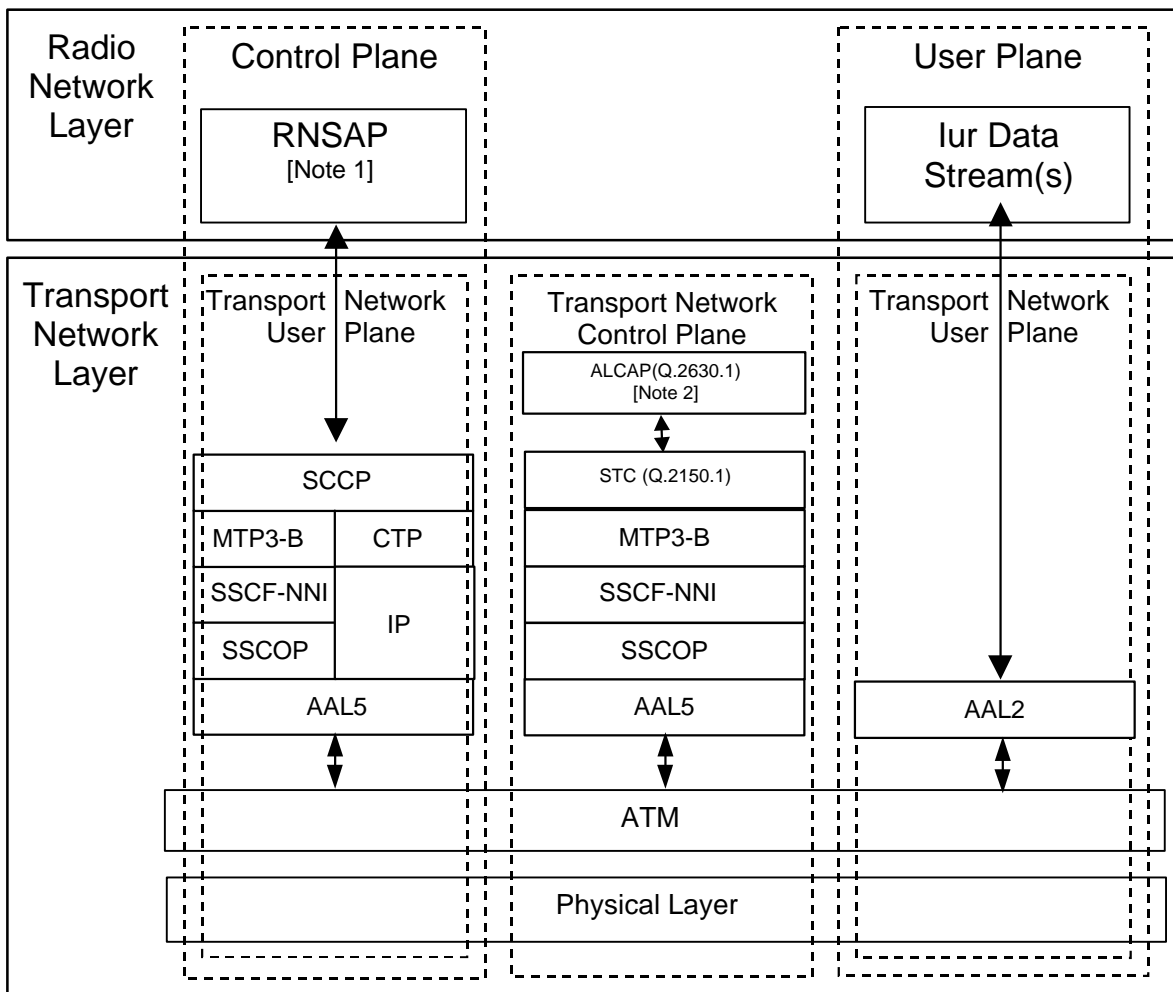
The semantics of an Iur Control Port include the following:

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

## 7 I<sub>ur</sub> 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 3. I<sub>ur</sub> 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]: Three alternatives for RNSAP signalling bearer currently exist. These three alternatives are FFS. Only one alternative however shall finally be selected for release '99:~~

~~Alternative 1:—SS7 only based solution.~~

~~Alternative 2:—CTP/IP only based solution.~~

~~Alternative 3:—Reference two options in the standard (one based on SS7 and the other GTP/IP), allowing operators to choose one out of two protocol suits for transport of SCCP messages.~~

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.

## 8 Handling of Common Transport Channel Data Streams over I<sub>ur</sub> Interface

### 8.1 Basic Principles

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

- QoS: For RACH/FACH over I<sub>ur</sub> only best effort with priority handling is considered, due to complexity reasons on the I<sub>ur</sub> 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 I<sub>ur</sub> for the first PDU
  - Need to minimise signalling on I<sub>ur</sub>
  - 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 I<sub>ur</sub> 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.*



---

## 9 Other I<sub>ur</sub> Interface Specifications

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

9.1 UTRAN I<sub>ur</sub> Interface: Layer 1 (TS 25.421)

9.2 UTRAN I<sub>ur</sub> Interface: Signalling Transport (TS 25.422)

9.3 UTRAN I<sub>ur</sub> Interface: RNSAP Specification (TS 25.423)

9.4 UTRAN I<sub>ur</sub> Interface: Data Transport and Transport Signalling for Common Transport Channel Data Streams (TS 25.424)

9.5 UTRAN I<sub>ur</sub> Interface: User Plane Protocols for Common Transport Channel Data Streams (TS 25.425)

9.6 UTRAN I<sub>ur</sub> & I<sub>ub</sub> Interface: Data Transport and Transport Signalling for DCH Data Streams (TS 25.426)

9.7 UTRAN I<sub>ur</sub> & I<sub>ub</sub> Interface: User Plane Protocols for DCH Data Streams (TS 25.427)

---

## 10 Bibliography

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

## 11 Annex A (normative):

### Annex A Document Stability Assessment Table

<u>Section</u>	<u>Content missing</u>	<u>Incomplete</u>	<u>Restructuring needed</u>	<u>Checking needed</u>	<u>Editorial work required</u>	<u>Finalisation needed</u>	<u>Almost stable</u>	<u>Stable</u>
<u>1</u>						√		
<u>2</u>	√							
<u>3</u>		√						
<u>4</u>		√						
<u>5</u>				√				
<u>6</u>				√				
<u>7</u>						√		
<u>8</u>						√		
<u>9</u>		√						
<u>10</u>	√							

<b>Editor's Status Report [TS 25.420 v0.1.3]</b>			
	<b>Section</b>	<b>% Complete</b>	<b>Comments / Outstanding issues</b>
<b>1</b>	<b>Scope</b>	Complete-?	
<b>2</b>	<b>References</b>	Empty	Editor to provide content.
<b>3</b>	<b>Definitions, symbols and abbreviations</b>		
3.1	Definitions	Empty	Editor to provide content.
3.2	Symbols	Empty	Editor to provide content.
3.3	Abbreviations	75%	
<b>4</b>	<b>General Aspects</b>		
4.1	UTRAN Architecture	25% -?	WG3 Review Required: Editor requests proposals to revise second paragraph: 'From a logical stand point....'.
4.2	<del>I<sub>ur</sub> Interface General Principles</del>		
4.2.1	<del>—General</del>	50% -?	WG3 Review Required.
4.2.2	<del>—RNSAP Procedures</del>	Complete-?	WG3 Review Required.
4.3	<del>I<sub>ur</sub> Interface Specification Objectives</del>		
4.3.1	<del>—General</del>	50% -?	WG3 Review Required.
4.3.2	<del>—Addressing of RNSs over the Iur Interface</del>	75% -?	WG3 Review Required. Contains note 'Connectionless RNSAP over Iur is FFS'.
4.4	<del>I<sub>ur</sub> Interface Capabilities</del>	50% -?	WG3 Review Required. Is the list complete? Text/references required content of (3) RACH data streams, (4) FACH data

			streams & (5) DSCH data streams. Contains note 'The FAUCH is FFS'.	
4.5	<del>I<sub>ur</sub> Interface Characteristics</del>	Empty	Proposals requested.	
<b>5</b>	<b><del>Functions of the I<sub>ur</sub> Interface Protocols</del></b>			
5.1	<del>Functional List</del>	25% ?	WG3 Review Required. Proposals requested to complete list. Is the 3 <sup>rd</sup> bullet of (3) valid.	
5.2	<del>Functional split over Iur</del>	50% ?	WG3 Review Required. Contributions required to complete list.	
5.2.1	<del>Macro diversity Combining/Splitting</del>	50% ?	WG3 Review Required.	
5.2.2	<del>Control of Macro diversity Combining/Splitting Topology</del>	50% ?	WG3 Review Required.	
5.2.3	<del>Handling of DRNS Hardware Resources</del>	50% ?	WG3 Review Required.	
5.2.4	<del>Allocation of Downlink Channelisation Codes</del>	50% ?	WG3 Review Required.	
5.2.5	<del>UpLink Power Control</del>	50% ?	WG3 Review Required. Contains note 'some additional function is needed for resource negotiation between the SRNS & DRNS across Iur (FFS).'	
5.2.6	<del>Down Link Power Control</del>	50% ?	WG3 Review Required.	
5.2.7	<del>Admission Control</del>	50% ?	WG3 Review Required.	
<b>6</b>	<del>DRNS Logical Model over Iur</del>	50% ?	The Model & associated text needs to be updated — proposals requested.	
6.1	<del>Overview</del>	50% ?	Revise diagram (inc. changing CCH to Common Transport Channel).	
6.2	<del>Logical Model Elements</del>			
6.2.1	<del>Radio link</del>	50% ?	Revise/Check description	
6.2.2	<del>Cell</del>	50% ?	Revise/Check description	

6.2.3	<del>Iur-DCH-Data-Port</del>	50% ?	<del>Revise/Check description</del>	
6.2.4	<del>Iur-CCH-Data-Port</del>	50% ?	<del>Revise/Check description</del>	
6.2.5	<del>Iur-Control-Port</del>	50% ?	<del>Revise/Check description</del>	
<b>7</b>	<b>Iur Interface Protocol Structure</b>	75% ?	<del>The protocol stack has been revised according to decisions taken at RAN-WG3#3. The stack may need to be revised pending the outcome of the RNSAP signalling bearer selection. Should references be included for the protocols shown in the stack ?.</del>	
<b>8</b>	<b>Handling of Common Transport Channel Data Streams over Iur Interface</b>			
8.1	<del>Basic Principles</del>	75% ?	<del>WG3 Review Required. Principles related to the handling of DSCH over Iur need to be defined.</del>	
<b>9</b>	<b>Other I<sub>ub</sub> Interface Specifications</b>			
9.1	<del>Iur Interface: Layer 1 (TS-25.421)</del>	Empty	<del>Editor to provide brief summary</del>	
9.2	<del>Iur Interface: Signalling Transport (TS-25.422)</del>	Empty	<del>Editor to provide brief summary</del>	
9.3	<del>Iur Interface: RNSAP Specification (TS-25.423)</del>	Empty	<del>Editor to provide brief summary</del>	
9.4	<del>Iur Interface: Data Transport &amp; Transport Signalling for Common Transport Channel Data Streams (TS-25.424)</del>	Empty	<del>Editor to provide brief summary</del>	
9.5	<del>Iur Interface: User Plane Protocols for Common Transport Channel Data Streams (TS-25.425)</del>	Empty	<del>Editor to provide brief summary</del>	
9.6	<del>Iur &amp; Iub Interface: Data Transport &amp; Transport Signalling for DCH Data Streams (TS-25.426)</del>	Empty	<del>Editor to provide brief summary</del>	
9.7	<del>Iur &amp; Iub Interface: User Plane Protocols for DCH Data Streams (TS-25.427)</del>	Empty	<del>Editor to provide brief summary</del>	
<b>10</b>	<b>Bibliography</b>	Empty	<del>Editor to provide content.</del>	

<b>11</b>	<b>Annex A (Document Status)</b>	Complete	Up to Date.	
<b>12</b>	<b>History</b>	Complete	Up to Date.	

## 12 History

<b>Document history</b>		
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
V0.1.1	1999-05	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): <ul style="list-style-type: none"> <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 &amp; paste throughout specification (excluding the information relating to Iur transport bearers originally proposed by editor to be included).</li> </ul> <p>The following changes have also been made:</p> <p>A new chapter included containing agreed principles for handling of Common Transport Channels (re chapter 8).</p> <p>A status report has been included.</p> <p>Minor editorial changes.</p>



V0.1.2	1999-05	<p>Editor's Proposal (Re R3-99530 [<i>same as v0.1.1+</i>])</p> <p>Inclusion of text for Abbreviation section (Section 3.3).</p> <p>Removal of editors' notes throughout TS, which were used in v0.1.1 to denote changes agreed at Kawasaki.</p> <p>Addition of text to the beginning of chapter 7 introducing the Protocol Stack.</p> <p>Removal of BISUP from Transport Network Control Plane of the Protocol Stack (fig 3).</p> <p>Approved at TSG RAN WG3#4, Warwick-UK.</p>
V0.1.3	1999-06	<p>Revised according to the decisions taken at TSG RAN WG3#4, Warwick-UK</p> <p>Replacement of text in section 6.2.3 (re: R3-99450).</p>
V0.1.4	1999-06	<p><i>Editor's Proposal:</i></p> <ul style="list-style-type: none"> <li>• <i>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).</i></li> <li>• Removal of some editor's notes</li> </ul> <p><u>Approved at TSG RAN WG3#5, Helsinki-Finland.</u></p>
<u>V0.1.5</u>	<u>1999-7</u>	<p><u>Revised according to decisions taken at TSG RAN Plenary#4, Miami-US:</u></p> <ul style="list-style-type: none"> <li>• <u>Removal of alternatives for RNSAP signalling bearer based on SS7 only and IP only solutions.</u></li> </ul> <p><u>Revised according to decisions taken at TSG RAN WG3#5, Helsinki-Finland:</u></p> <ul style="list-style-type: none"> <li>• <u>Replace the term 'Common Procedures' with 'Global Procedures'.</u></li> <li>• <u>Remove statements regarding the mandatory/optional nature of 'DCH' and 'Common Transport Channel Procedures'.</u></li> <li>• <u>Alignment of Document Stability Assessment Table with the format used in TS 25.401.</u></li> </ul>
<p>Editor for 3GPP RAN 25.420 is:</p> <p>Kevin Hegerty Lucent Technologies Tel.: +44 1793 883163 Fax : +44 1793 883815 Email : <a href="mailto:khegerty@lucent.com">khegerty@lucent.com</a></p>		
<p>This document is written in Microsoft Word version 7/97.</p>		