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Iu Interface CN-RAN User Plane Protocols

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Intellectual Property Rights

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project, Technical Specification Group RAN WG3.

The contents of this TS may be subject to continuing work within the 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.

1

2 Scope

This Technical Specification defines the protocols being used to transport and control over the Iu interface, the Iu User Data Streams.

3 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] UTRAN Architecture

[2] UMTS S3.xx RANAP protocol

[3] UMTS S3.14, 3rd Generation Partnership Project (3GPP) Technical Specification Group (TSG) RAN; Iu Interface Data Transport and Transport Signalling

[4] 23.10

4 Definitions, symbols and abbreviations

4.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

4.2 Symbols

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

4.3 Abbreviations

4.4 Concepts

5 General

6 PSTN/ISDN Domain

6.1 General

6.1.1 Protocol Architecture

6.1.2 Interfaces of the Iu CS UP protocol *layer*

6.2 Iu UP Protocol layer Services

6.3 Services Expected from the UP Data Transport layer

6.4 Functions of the Iu UP Protocol Layer

6.5 Elementary procedures

6.6 Primitives used by the Iu UP Protocol Layer

6.6.1 Primitives towards the upper layers

6.6.2 Primitives towards the transport layers

6.7 Elements for Iu UP communication

6.7.1 Frame Format and content definition

6.7.2 Frame coding

6.7.3 Timers

6.8 Handling of unknown, unforeseen and erroneous protocol data

7 IP Domain

7.1 General

- The standard shall support that the user data flows transported over the Iu reference point to/from the SGSN shall be multiplexed on top of common layer 2 resources.

7.1.1 Protocol Architecture

7.1.2 Interfaces of the Iu UP protocol layer

7.2 Iu UP Protocol layer Services

7.3 Services Expected from the UP Data Transport layer

7.4 Functions of the Iu UP Protocol layer

7.4.1 Flow Control and/or Buffer management

7.5 Elementary procedures

7.6 Primitives used by the Iu UP Protocol layer

7.6.1 Primitives towards the upper layers

7.6.2 Primitives towards the transport layers

7.7 Elements for Iu UP communication

7.8 Handling of unknown, unforeseen and erroneous protocol data

8 Annex A (Normative)

9 History

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