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Technical Specification

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Mobile radio interface layer 3 specification;
Radio Resource Control (RRC) protocol
(3GPP TS 04.18 version 8.27.0 Release 1999)**

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GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS

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Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

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

Version x.y.z

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- x the first digit:
 - 1 presented to TSG for information;
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document specifies the procedures used at the radio interface (Reference Point Um, see 3GPP TS 04.02) for Radio Resource (RR) management.

Notation "Reserved sub-clause number" is used to indicate which sub-clauses of the specification were moved from this part of the standard to the other part when this standard was split between RAN and CN parts.

When the notations for "further study" or "FS" or "FFS" are present in the present document they mean that the indicated text is not a normative portion of the present document.

These procedures are defined in terms of messages exchanged over the control channels of the radio interface. The control channels are described in 3GPP TS 04.03.

The structured functions and procedures of this protocol and the relationship with other layers and entities are described in general terms in 3GPP TS 24.007.

1.1 Scope of the Technical Specification

The procedures currently described in the present document are for radio resource management for circuit-switched and GPRS services.

3GPP TS 24.010 contains functional procedures for support of supplementary services.

3GPP TS 04.11 contains functional procedures for support of point-to-point short message services.

3GPP TS 04.12 contains functional description of short message - cell broadcast.

3GPP TS 04.60 contains procedures for radio link control and medium access control (RLC/MAC) of packet data physical channels.

3GPP TS 24.071 contains functional descriptions and procedures for support of location services.

3GPP TS 24.008 contains the procedures for CN protocols.

NOTE: "layer 3" includes the functions and protocols described in the present document. The terms "data link layer" and "layer 2" are used interchangeably to refer to the layer immediately below layer 3.

1.2 Application to the interface structures

The layer 3 procedures apply to the interface structures defined in 3GPP TS 04.03. They use the functions and services provided by layer 2 defined in 3GPP TS 04.05 and 3GPP TS 04.06. 3GPP TS 24.007 gives the general description of layer 3 including procedures, messages format and error handling.

1.3 Structure of layer 3 procedures

A building block method is used to describe the layer 3 procedures.

The basic building blocks are "elementary procedures" provided by the protocol control entities of the three sublayers, i.e. radio resource management, mobility management and connection management sublayer.

Complete layer 3 transactions consist of specific sequences of elementary procedures. The term "structured procedure" is used for these sequences.

1.4 Test procedures

Test procedures of the GSM radio interface signalling are described in 3GPP TS 11.10 and 3GPP TS 11.2x series.