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Technical Report

3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Measurement Requirements (Release 8)



The present document has been developed within the 3rd Generation Partnership Project (3GPP TM) and may be further elaborated for the purposes of 3GPP.

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Contents

Forew	vord	.4
Introd	uction	.4
1	Scope	.5
2	References	.5
3	Definitions, symbols and abbreviations	.5
3.1	Definitions	.5
3.2	Symbols	
3.3	Abbreviations	.6
4	Measurements for RRC_IDLE mode mobility	.7
4.1	RRC_IDLE state	.7
4.1.1	Neighbour cell list	.7
4.1.1	DRX and measurement occasions	.7
4.1.2	UE Measurements	
4.1.3	Cell selection / reselection to E-UTRA	
4.1.4	Cell reselection to other RAT	
4.1.4.1		
4.1.4.2		
5	Measurements for RRC_CONNECTED mode mobility	
5.1	RRC_CONNECTED state	
5.1.1	RRC_CONNECTED measurement neighbour cell list	
5.1.2	Discontinuous Reception (DRX) and Transmission (DTX)	
5.1.3	Transmission Gaps	
5.2	UE Measurements	
5.3	Handover to E-UTRA	
5.4	Handover to other RAT	
5.4.1	Handover to UTRAN	
5.4.2	Handover to GERAN	
6.	Measurements for network optimization and initialization	
6.1	UE measure ments	
6.2 7	BS measurements	
7.1	UE measurements.	
7.1	BS measurements	
8	Measurements for UE positioning	
8.1	UE measurements	
8.2	BS measurements	
9	Reporting Criteria in RRC_CONNECTED state	
10	RACH measurements	
11	Timing and signalling characteristics.	
12	Measurement Performance Requirements	
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Foreword

This Technical Report 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

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 or greater indicates TSG approved document under change control.
- 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.

Introduction

1 Scope

The present document should identify the required UE and BS measurements for E-UTRA, e.g. for mobility, positioning, and traffic. It should also identify the requirements, i.e. the measurements interval, the reporting accuracy, granularity and performance requirements. Furthermore it should also identify the constraints, content and size of neighbour cell lists, e.g. multi mode multi RAT operation, provisioning of measurement occurances need for parallel measurements, i.e. mobility and positioning. The purpose of this TR is to provide specification support for RAN WG1,2,3,4.

This document is intended to gather the agreements rather than comparing different solutions.

NOTE: This document is a living document, i.e. it is permanently updated and presented to TSG-RAN meetings.

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. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document.

[<seq>] <doctype> <#>[([up to and including]{yyyy[-mm]|V<a[.b[.c]]>}[onwards])]: "<Title>".

3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [1].

Definition format

<defined term>: <definition>.

example: text used to clarify abstract rules by applying them literally.

3.2 Symbols

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

Symbol format

<symbol> <Explanation>

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

Abbreviation format

<ACRONYM> <Explanation>

4	Measurements for RRC_IDLE mode mobility
4.1	RRC_IDLE state
4.1.1	Neighbour cell list
4.1.1	DRX and measurement occasions
4.1.2	UE Measurements
4.1.3	Cell selection / reselection to E-UTRA
4.1.4	Cell reselection to other RAT
4.1.4.1	Cell reselection to UTRAN
4.1.4.2	Cell reselection to GERAN
5	Measurements for RRC_CONNECTED mode mobility
5.1	RRC_CONNECTED state
5.1.1	RRC_CONNECTED measurement neighbour cell list
5.1.2	Discontinuous Reception (DRX) and Transmission (DTX)
5.1.3	Transmission Gaps
5.2	UE Measurements
5.3	Handover to E-UTRA
5.4	Handover to other RAT
5.4.1	Handover to UTRAN
5.4.2	Handover to GERAN
6.	Measurements for network optimization and initialization
6.1	UE measurements
6.2	BS measurements

7	Measurements for other RRM purposes
7.1	UE measurements
7.2	BS measurements
8	Measurements for UE positioning
8.1	UE measurements
8.2	BS measurements
9	Reporting Criteria in RRC_CONNECTED state
10	RACH measurements
11	Timing and signalling characteristics
12	Measurement Performance Requirements

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