

Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group TSG RAN
Universal Terrestrial Radio Access (UTRA) and Evolved
Universal Terrestrial Radio Access (E-UTRA);
Radio measurement collection for Minimization of Drive Tests
(MDT);
Overall description;
Stage 2
(Release 10)**



The present document has been developed within the 3rd Generation Partnership Project (3GPP™) and may be further elaborated for the purposes of 3GPP..
The present document has not been subject to any approval process by the 3GPP Organizational Partners and shall not be implemented.
This Specification is provided for future development work within 3GPP only. The Organizational Partners accept no liability for any use of this Specification.

Keywords

<keyword[, keyword, ...]>

3GPP

Postal address

3GPP support office address

650 Route des Lucioles - Sophia Antipolis
Valbonne - FRANCE
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Internet

<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.

© 2010, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TTA, TTC).
All rights reserved.

Contents

Foreword.....	5
Introduction	5
1 Scope	6
2 References	6
3 Definitions, symbols and abbreviations	6
3.1 Definitions	6
3.2 Symbols	7
3.3 Abbreviations.....	7
4 Main concept and requirements	7
4.1 General.....	7
5 Functions and procedures.....	8
5.1 General procedures	8
5.1.1 Logged MDT procedures	8
5.1.1.1 Measurement configuration	8
5.1.1.1.1 Configuration parameters.....	9
5.1.1.1.2 Configuration effectiveness	9
5.1.1.2 Measurement collection.....	10
5.1.1.3 Measurement reporting.....	10
5.1.1.3.1 Availability Indicator	10
5.1.1.3.2 Report retrieval	10
5.1.1.3.3 Reporting parameters	11
5.1.1.4 MDT context handling during handover.....	11
5.1.2 Immediate MDT procedures	11
5.1.2.1 Measurement configuration.....	11
5.1.2.2 Measurement reporting.....	11
5.1.2.3 MDT context handling during handover	12
5.1.3 MDT Initiation	12
5.1.4 UE capabilities	12
5.1.5 UE measurements.....	12
5.2 E-UTRAN solutions	12
5.2.1 RRC_CONNECTED.....	12
5.2.1.1 Measurements and reporting triggers for Immediate MDT	12
5.2.1.2 Enhancement to Radio Link Failure report.....	13
5.2.2 RRC_IDLE.....	13
5.3 UTRAN solutions	13
5.3.1 UTRA RRC Connected.....	13
5.3.1.1 Measurements and reporting events for Immediate MDT	13
5.3.2 UTRA Idle.....	14
Annex A (informative): Coverage use cases	14
Annex: Change history	15

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

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

Using drive tests for network optimization purposes is costly and causes also additional CO₂ emissions, so it is desirable to develop automated solutions, including involving UEs in the field, in 3GPP to reduce the operator costs for network deployment and operation. The studies done as part of the study item phase have shown that it is beneficial to collect UE measurements to enable a more efficient network optimisation and it is feasible to use control plane solutions to acquire the information from devices. This information, together with information available in the radio access network can be used for Coverage Optimization purposes.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.