

ETSI TS 102 250-5 V2.2.1 (2011-04)

Technical Specification

Speech and multimedia Transmission Quality (STQ); QoS aspects for popular services in mobile networks; Part 5: Definition of typical measurement profiles

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ETSI TS 102 250-5 V2.2.1 \(2011-04\)](https://standards.iteh.ai/catalog/standards/etsi/48f6865e-1825-4c26-be7e-ff680a3a04a7/etsi-ts-102-250-5-v2-2-1-2011-04)

<https://standards.iteh.ai/catalog/standards/etsi/48f6865e-1825-4c26-be7e-ff680a3a04a7/etsi-ts-102-250-5-v2-2-1-2011-04>



Reference

RTS/STQ-00177m

Keywords

3G, GSM, network, QoS, service, speech

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

(<https://standards.iteh.ai>)
Document Preview

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

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.

© European Telecommunications Standards Institute 2011.
All rights reserved.

DECT™, **PLUGTESTS™**, **UMTS™**, **TIPHON™**, the TIPHON logo and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.

3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

LTE™ is a Trade Mark of ETSI currently being registered

for the benefit of its Members and of the 3GPP Organizational Partners.

GSM® and the GSM logo are Trade Marks registered and owned by the GSM Association.

Contents

Intellectual Property Rights	4
Foreword.....	4
Introduction	5
1 Scope	6
2 References	6
2.1 Normative references	6
2.2 Informative references.....	6
3 Definitions and abbreviations.....	7
3.1 Definitions	7
3.2 Abbreviations	7
4 Measurement profiles.....	8
4.1 Classification of measurement environments.....	8
4.2 Service profiles.....	9
4.2.1 Telephony	9
4.2.1.1 Speech Telephony	9
4.2.1.2 Video Telephony.....	10
4.2.1.3 Group Call.....	10
4.2.2 Messaging Services.....	10
4.2.2.1 {SMS SDS}.....	10
4.2.2.2 Concatenated {SMS SDS}	11
4.2.2.3 MMS	11
4.2.3 Data services	11
4.2.3.1 Circuit switched	11
4.2.3.2 Packet switched.....	12
4.2.3.2.1 Service-independent timeout values	12
4.2.3.2.2 Service-dependent timeout values	12
4.3 Usage Profiles for Data Sessions.....	13
4.3.1 Web browsing using HTTP	15
4.3.2 E-Mail access.....	15
4.3.3 File Transfer using FTP	15
4.3.4 File Sharing using UDP	15
4.3.5 Synthetic tests	16
4.3.5.1 UDP.....	16
4.3.5.2 ICMP.....	16
4.3.5.3 TCP	16
Annex A (informative): Reference {SMS SDS}.....	17
Annex B (informative): Content integrity checking.....	18
B.1 HTTP	18
B.2 FTP.....	19
B.3 MMS.....	19
Annex C (informative): Transfer times versus used data rate and content size	20
Annex D (informative): Bibliography	21
History	22

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://webapp.etsi.org/IPR/home.asp>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Speech and multimedia Transmission Quality (STQ).

The present document is part 5 of a multi-part deliverable covering the QoS aspects for popular services in mobile networks, as identified below:

- Part 1: "Assessment of Quality of Service";
- Part 2: "Definition of Quality of Service parameters and their computation";
- Part 3: "Typical procedures for Quality of Service measurement equipment";
- Part 4: "Requirements for Quality of Service measurement equipment";
- Part 5: "Definition of typical measurement profiles";**
- Part 6: "Post processing and statistical methods";
- Part 7: "Network based Quality of Service measurements".

Part 1 builds an umbrella document for this multi-part deliverable. It summarizes the basics of Quality of Service, always seen from the user's perspective. Differences to Quality of Experience (QoE) are also discussed. In extension to generic definitions, specific definitions for this multi-part deliverable are stated here. Furthermore, it gives guidance to assure that QoS assessments can be conducted in a meaningful way and proposes an according process.

Part 2 defines QoS parameters and their computation for popular services in mobile networks. The parameter definition is split into several parts. It contains an abstract definition which gives a generic description of the parameter, an abstract equation and the corresponding user and technical trigger points.

The harmonized definitions given in part 2 are considered as prerequisites for the comparison of QoS measurements and measurement results.

Part 3 describes the measurement procedures needed to perform the measurements of QoS parameters in line with the definitions given in part 2, applying the test profiles defined in part 5.

Part 4 defines the minimum requirements of QoS measurement equipment for mobile networks in the way that the values and trigger points needed to compute the QoS parameter as defined in part 2 can be measured following the procedures defined in part 3. Test equipment fulfilling the specified minimum requirements will allow performing the proposed measurements in a reliable and reproducible way.

The present document specifies typical measurement profiles which are required to enable benchmarking of different mobile networks both within and outside national boundaries.

Part 6 describes procedures to be used for statistical calculations in the field of QoS measurement of mobile networks using probing systems.

Part 7 describes how Quality of Service measurements should be done inside the network without direct access to the end point terminal.