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Speech and multimedia Transmission Quality (STQ);
Reference webpage for subjective testing

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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

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Foreword

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

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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Introduction

As interactive web services such as web browsing are gaining considerable importance in mobile broadband networks, it is also crucial to assess its performance in terms of QoS and QoE. While the interaction patterns of web browsing are simple (request - response), proper performance testing of this service in mobile communications networks is not. There is a complex interplay between web content, Internet and fixed network infrastructure, air interface, end-user devices including actual web browser applications and the end user's perception.

With regards to technical performance testing for web browsing, ETSI has taken efforts by approving the COPERNICUS web page and its successor KEPLER (http://portal.etsi.org/stq/WebReferencePage.asp) as reference web pages for technically instrumented QoS parameter tests in live networks. However, due to the fact that their content is not interesting for users to interact with, they cannot be effectively used in subjective tests for web browsing QoE. Therefore, in the present document content for subjective web-browsing QoE is developed.

1 Scope

The present document describes the structure of a news web page with an underlying database of news articles, which can be used for subjective QoE testing of web browsing. In addition, it also describes how the database and the web page are set up on a server and how content of different web pages can be harvested, in order to build up the database of news articles.

Different to the approach taken for deriving the parameters for the Kepler and Copernicus pages described in ETSI TR 102 505 [i.3], this page is not an "average" of several different pages, but is targeted towards the following focuses:

1) provisioning of news content that can be used throughout several consecutive web browsing sessions without repetition of already seen or read news content; and

2) create a page that adheres with W3C® guidelines for proper web design in terms of appearance and technical implementation in order to minimize the influence of badly designed or programmed web pages.

The page described within the present document is only a snapshot of a typical news page at the moment of creation, however it provides content that can be used by different QoE labs for testing and therefore allows comparisons of the results between different labs.

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

2.1 Normative references

The following referenced documents are necessary for the application of the present document.

Not applicable.

2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] Skadberg04 Y. X. Skadberg and J. R. Kimmel: "Visitors' flow experience while browsing a Web site: its measurement, contributing factors and consequences". Computers in Human Behavior, vol. 20, pp. 403-422, 2004.

[i.2] MoellerRaake14 Quality of Experience: "Advanced Concepts, Applications and Methods". Springer, Cham, 2014.

NOTE 1: Running example of the test web page: http://kepler.dataworkers.eu.

NOTE 2: Download of current version: https://ace.ftw.at/downloads/web-qoe-testing-content/web-content-v2.0.

[i.3] ETSI TR 102 505: "Speech and multimedia Transmission Quality (STQ); Development of a Reference Web page".