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TELECOMMUNICATION
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OF ITU

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SERIES G: TRANSMISSION SYSTEMS AND MEDIA,
DIGITAL SYSTEMS AND NETWORKS

Multimedia Quality of Service and performance – Generic
and user-related aspects

Voice service diagnosis framework

Recommendation ITU-T G.1029

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For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T G.1029

Voice service diagnosis framework

Summary

Recommendation ITU-T G.1029 provides a framework and guidelines that describe how ITU-T speech quality assessment models can be used to identify common voice quality problems in live networks and how these can aid in diagnosing the cause of such problems once detected.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
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Cause analysis, ITU-T objective model, problem diagnosis, voice service.

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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Recommendation ITU-T G.1029

Voice service diagnosis framework

1 Scope

This Recommendation provides a framework and guidelines that describe how ITU-T speech quality assessment models can be used to identify common voice quality problems in live networks and how these can aid in diagnosing the cause of such problems once detected. The scope of this Recommendation is limited to voice service only.

The Recommendation is intended to help non voice experts tasked with managing voice service and diagnosing voice quality problems, especially when voice is regarded as "just another IP application" on the network.

The scope of this Recommendation relates to the perceived quality of the media stream; it does not include factors such as billing, availability, customer service, etc. The primary focus is point-to-point voice services; however, the methods and approaches described can also be applied to the individual legs of multi-party voice applications such as audio-conferencing.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

- [ITU-T P.561] Recommendation ITU-T P.561 (2002), *In-service non-intrusive measurement device – Voice service measurements*.
- [ITU-T P.562] Recommendation ITU-T P.562 (2004), *Analysis and interpretation of INMD voice-service measurements*.
- [ITU-T P.563] Recommendation ITU-T P.563 (2004), *Single-ended method for objective speech quality assessment in narrow-band telephony applications*.
- [ITU-T P.564] Recommendation ITU-T P.564 (2007), *Conformance testing for voice over IP transmission quality assessment models*.
- [ITU-T P.800] Recommendation ITU-T P.800 (1996), *Methods for subjective determination of transmission quality*.
- [ITU-T P.800.1] Recommendation ITU-T P.800.1 (2006), *Mean Opinion Score (MOS) terminology*.
- [ITU-T P.800.2] Recommendation ITU-T P.800.2 (2013), *Mean opinion score interpretation and reporting*.
- [ITU-T P.862] Recommendation ITU-T P.862 (2001), *Perceptual evaluation of speech quality (PESQ): An objective method for end-to-end speech quality assessment of narrow-band telephone networks and speech codecs*.
- [ITU-T P.862.1] Recommendation ITU-T P.862.1 (2003), *Mapping function for transforming P.862 raw result scores to MOS-LQO*.