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SERIES Y: GLOBAL INFORMATION
INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS
AND NEXT-GENERATION NETWORKS

Internet protocol aspects – Interworking

Voice trunking over IP networks

ITU-T Recommendation Y.1452



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General	Y.100–Y.199
Services, applications and middleware	Y.200–Y.299
Network aspects	Y.300–Y.399
Interfaces and protocols	Y.400–Y.499
Numbering, addressing and naming	Y.500–Y.599
Operation, administration and maintenance	Y.600–Y.699
Security	Y.700–Y.799
Performances	Y.800–Y.899

INTERNET PROTOCOL ASPECTS

General	Y.1000–Y.1099
Services and applications	Y.1100–Y.1199
Architecture, access, network capabilities and resource management	Y.1200–Y.1299
Transport	Y.1300–Y.1399
Interworking	Y.1400–Y.1499
Quality of service and network performance	Y.1500–Y.1599
Signalling	Y.1600–Y.1699
Operation, administration and maintenance	Y.1700–Y.1799
Charging	Y.1800–Y.1899

NEXT GENERATION NETWORKS

Frameworks and functional architecture models	Y.2000–Y.2099
Quality of Service and performance	Y.2100–Y.2199
Service aspects: Service capabilities and service architecture	Y.2200–Y.2249
Service aspects: Interoperability of services and networks in NGN	Y.2250–Y.2299
Numbering, naming and addressing	Y.2300–Y.2399
Network management	Y.2400–Y.2499
Network control architectures and protocols	Y.2500–Y.2599
Security	Y.2700–Y.2799
Generalized mobility	Y.2800–Y.2899

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ITU-T Recommendation Y.1452

Voice trunking over IP networks

Summary

This Recommendation addresses required functions for voice trunking over IP networks. It specifies the required protocols, the interactions between these protocols and audio channel mechanisms, the operation of the IWF, and the mechanisms for transporting over point-to-point or complex IP networks. This Recommendation may not be suitable for use by recognized operating agencies (ROA).

Source

ITU-T Recommendation Y.1452 was approved on 1 March 2006 by ITU-T Study Group 13 (2005-2008) under the ITU-T Recommendation A.8 procedure.

Keywords

Interworking, IP, network interworking, UDP, user plane, voice services, voice trunking, VoIP.

FOREWORD

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CONTENTS

Page

1	Scope	1
2	References.....	1
3	Definitions	3
4	Abbreviations and acronyms	3
5	Conventions	4
6	Voice trunking over IP networks	4
7	General requirements	5
7.1	User plane requirements	5
7.2	Management plane aspects	6
7.3	Fault management aspects	6
7.4	Traffic management aspects	6
7.5	Connection admission control for the IWF	7
7.6	Congestion control.....	7
8	Functional group considerations for VToIP network interworking	7
8.1	IP.....	7
8.2	UDP	7
8.3	Common interworking indicators.....	8
9	Payload format.....	9
10	Encapsulation format.....	10
11	Aggregating VoIP streams.....	12
12	Security considerations.....	13

Introduction

This Recommendation specifies the required functions and procedures necessary for support of narrow-band voice services by IP networks. Narrow-band voice services include digital audio streams, telephony call progress tones, facsimile, and optionally, circuit mode data. Details of the encapsulation of encoded audio streams are specified.

ITU-T Recommendation Y.1452

Voice trunking over IP networks

1 Scope

This Recommendation specifies the required functions and procedures necessary for support of narrow-band voice services by IP networks.

Narrow-band voice services include digital audio streams, telephony call progress tones, facsimile, and optionally, circuit mode data.

This Recommendation specifies encapsulation of digital audio in IP packets. Algorithms for encoding audio streams are beyond the scope of this Recommendation.

This Recommendation may not be suitable for use by recognized operating agencies (ROA).

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.

- [1] ITU-T Recommendation Y.1411 (2003), *ATM-MPLS network interworking – Cell mode user plane interworking*.
- [2] ITU-T Recommendation G.809 (2003), *Functional architecture of connectionless layer networks*.
- [3] ITU-T Recommendation G.711 (1988), *Pulse code modulation (PCM) of voice frequencies*.
- [4] ITU-T Recommendation G.723.1 (1996), *Dual rate speech coder for multimedia communications transmitting at 5.3 and 6.3 kbit/s*.
- [5] ITU-T Recommendation G.726 (1990), *40, 32, 24, 16 kbit/s Adaptive Differential Pulse Code Modulation (ADPCM)*.
- [6] ITU-T Recommendation G.727 (1990), *5-, 4-, 3- and 2-bit/sample embedded adaptive differential pulse code modulation (ADPCM)*.
- [7] ITU-T Recommendation G.729 (1996), *Coding of speech at 8 kbit/s using conjugate-structure algebraic-code-excited linear-prediction (CS-ACELP)*.
- [8] ETSI EN 301 703 V7.0.2 (1999), *Digital cellular telecommunications system (Phase 2+) (GSM) Adaptive Multi-Rate (AMR); Speech processing functions; General description (GSM 06.71 version 7.0.2 Release 1998)*.
- [9] ITU-T Recommendation G.722 (1988), *7 kHz audio-coding within 64 kbit/s*.
- [10] ITU-T Recommendation G.722.1 (2005), *Low-complexity coding at 24 and 32 kbit/s for hands-free operation in systems with low frame loss*.
- [11] ITU-T Recommendation G.722.2 (2003), *Wideband coding of speech at around 16 kbit/s using Adaptive Multi-Rate Wideband (AMR-WB)*.
- [12] ITU-T Recommendation G.711 Appendix I (1999), *A high quality low-complexity algorithm for packet loss concealment with G.711*.

