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**Information technology —
Telecommunications and information
exchange between systems — Corporate
telecommunication networks — Signalling
interworking between QSIG and H.323 —
Generic functional protocol for the support
of supplementary services**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Réseaux de télécommunications
corporatifs — Signalisation de travail entre QSIG et H.323 — Protocole
fonctionnel général pour le support des services supplémentaires*



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 21409 was prepared by ECMA (as ECMA-307) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

Annex A forms a normative part of this International Standard.

Introduction

This International Standard is one of a series of Standards defining the interworking of services and signalling protocols deployed in Corporate telecommunication Networks (CNs). The series uses telecommunication concepts as developed by ITU-T and conforms to the framework of International Standards on Open Systems Interconnection as defined by ISO/IEC.

This International Standard defines the signalling protocol interworking for the generic functional procedures in support of Supplementary Services and/or Additional Network Features (ANFs) between a Private Integrated Services Network (PISN) and a private telecommunications network based on the Internet Protocol (IP). It is further assumed that the protocol for the PISN is that defined for the Q reference point (QSIG) and the protocols for the IP based network are based on ITU-T Recommendation H.323.

This International Standard is based upon the practical experience of ECMA member companies and the results of their active and continuous participation in the work of ISO/IEC JTC 1, ITU-T, ETSI and other international and national standardization bodies. It represents a pragmatic and widely based consensus.

Information technology — Telecommunications and information exchange between systems — Corporate telecommunication networks — Signalling interworking between QSIG and H.323 — Generic functional protocol for the support of supplementary services

1 Scope

This International Standard specifies signalling interworking between “QSIG” and “H.323” in support of generic functional procedures for supplementary services within a Corporate telecommunication Network (CN).

“QSIG” is a signalling protocol that operates at the Q reference point between Private Integrated Services eXchanges (PINX) within a Private Integrated Services Network (PISN). The Q reference point is defined in ISO/IEC 11579-1. A PISN provides circuit-switched basic services and supplementary services to its users. QSIG is specified in other Standards, in particular ISO/IEC 11572 (call control in support of basic services), ISO/IEC 11582 (generic functional protocol for the support of supplementary services) and a number of standards specifying individual supplementary services.

“H.323” is a set of signalling protocols for the support of voice or multimedia communication within a packet network, in particular a packet network that uses the Internet Protocol (IP) as its network layer protocol (IP network). H.323 signalling protocols operate between endpoints in an IP network, either indirectly via one or more gatekeepers, or directly. An endpoint can be a terminal or a gateway to another network. H.323 is an “umbrella” recommendation, referring to various ITU-T recommendations, in particular Recommendations H.225.0 and H.245 (basic communication capabilities) and Recommendation H.450.1 (generic functional protocol for the support of supplementary services).

NOTE - H.450.1 applies to the 1998 version of H.323 (also known as H.323 version 2) and to later versions.

Interworking between QSIG and H.323 permits a call originating at a user of a PISN to terminate at a user of an IP network, or a call originating at a user of an IP network to terminate at a user of a PISN. In addition this International Standard enables the participants of a call to exchange supplementary service control information in a generic way. The more specific aspects of interworking particular supplementary services are specified in other Standards.

This International Standard is applicable to any interworking unit that can act as a gateway between a PISN employing QSIG and an IP network employing H.323.

2 Conformance

In order to conform to this International Standard, a gateway shall satisfy the requirements identified in the Implementation Conformance Statement (ICS) proforma in annex A.

3 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO/IEC 11572:2000, *Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Circuit mode bearer services — Inter-exchange signalling procedures and protocol*

ISO/IEC 11579-1:1994, *Information technology — Telecommunications and information exchange between systems — Private integrated services network — Part 1: Reference configuration for PISN Exchanges (PINX)*

ISO/IEC 11582:1995, *Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Generic functional protocol for the support of supplementary services — Inter-exchange signalling procedures and protocol*

ITU-T Rec. H.225.0:1998 (or later edition), *Call signalling protocols and media stream packetization for packet-based multimedia communication systems*

ITU-T Rec. H.245:1998 (or later edition), *Control protocol for multimedia communication*

ITU-T Rec. H.323:1998 (or later edition), *Packet-based multimedia communications systems*

ITU-T Rec. H.450.1:1998, *Generic functional protocol for the support of supplementary services in H.323*