INTERNATIONAL STANDARD

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# Information technology — Telecommunications and information exchange between systems — Broadband Private Integrated Services Network — Inter-exchange signalling protocol — Generic functional protocol

*Technologies de l'information — Télécommunications et échange d'information entre systèmes — Réseau à intégration de services privés à large bande — Protocole de signalisation d'interéchange — Protocole fonctionnel générique*

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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 19058 was prepared by ECMA (as ECMA-254) 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.

Annexes A, B and C form a normative part of this International Standard. Annexes D to J are for information only.

## Introduction

This International Standard is one of a series of standards defining services and signalling protocols applicable to Broadband Private Integrated Services Networks. The series uses the B-ISDN concepts as developed by ITU-T (formerly CCITT) and is also within the framework of International Standards for open systems interconnection as defined by ISO.

This International Standard is based upon ATM Forum's specification AF-CS-0102.000 with modification indicated in the text of this International Standard.

This International Standard specifies the signalling protocol for use at the Q reference point in support of the Generic Functional Protocol.

The 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 standardisation bodies. It represents a pragmatic and widely based consensus.

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## 1 Scope

This International Standard specifies the functional protocol for the support of supplementary services and additional basic call capabilities at the Q-reference point. The Q-reference point exists between Private Integrated services Network eXchanges (PINX) connected together within a Private Integrated Services Network (PISN) and is defined in ISO/IEC 11579-1. The generic functional protocol is part of the B-QSIG signalling system.

The procedures specified in this International Standard can be used in association with a bearer connection (bearer-related) or outside the context of any bearer connection (bearer-independent).The application of this International Standard to individual additional basic call capabilities and supplementary services is outside the scope of this International Standard and should be defined in those standards or proprietary specifications that specify the individual capabilities.

All conformance to this International Standard is based on the external behaviour at the interface at the Q-reference point, i.e. on the generation of the correct message structure and in the proper sequence as specified in this International Standard.

The generic functional protocol is based on ATM Forum specification AF-CS-0102.000, which itself is based on the DSS2 generic functional protocol specified in ITU-T Rec. Q.2932.1 but extended to allow non-local information exchange as well as local information exchange.

This International Standard is applicable to PINXs supporting additional basic call capabilities and/or supplementary services requiring the functional protocol for signalling at the Q-reference point.

## 2 Conformance

In order to conform to this International Standard, a PINX shall satisfy the requirements identified in the Protocol Implementation Conformance Statement (PICS) proforma in section 30 of AF-CS-0102.000.

## 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.

AF-CS-0102.000, *PNNI Addendum on PNNI/B-QSIG Interworking and Generic Functional Protocol for the Support of Supplementary Services.*

References contained in section 26.2 of AF-CS-0102.000 shall apply with the following additions:

ISO/IEC 13246:1997, *Information technology - Telecommunications and information exchange between systems - Broadband Private Integrated Services Network - Inter-exchange signalling protocol - Signalling ATM adaptation layer.*

ISO/IEC 13247:1997, *Information technology - Telecommunications and information exchange between systems - Broadband Private Integrated Services Network - Inter-exchange signalling protocol - Basic call/connection control.*

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).*