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**Information technology —  
Telecommunications and information  
exchange between systems —  
Private Integrated Services Network —  
Inter-exchange signalling protocol —  
Wireless Terminal Location Registration  
supplementary service and Wireless  
Terminal Information exchange additional  
network feature**

*Technologies de l'information — Télécommunications et échange  
d'information entre systèmes — Réseau privé à intégration de  
services — Protocole de signalement d'interéchange — Service  
supplémentaire d'enregistrement de localisation de terminal sans fil et  
caractéristiques de réseau additionnelles pour l'échange d'information  
de terminal sans fil*

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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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. 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 document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 15429 was prepared by ECMA (as ECMA-302) 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.

This second edition cancels and replaces the first edition (ISO/IEC 15429:1999), which has been technically revised.

## Introduction

This International Standard is one of a series of Standards defining Wireless Terminal Mobility (WTM) services and signalling protocols applicable to Private Integrated Services Networks (PISNs). The series uses ISDN concepts as developed by ITU-T and conforms to the framework of International Standards for Open Systems Interconnection as defined by ISO/IEC.

This International Standard specifies the signalling protocol for use at the Q reference point in support of the WTM Wireless Terminal Location Registration supplementary service and the Wireless Terminal Information Exchange additional network feature. The protocol defined in this International Standard forms part of the PSS1 protocol (informally known as QSIG).

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 — Private Integrated Services Network — Inter-exchange signalling protocol — Wireless Terminal Location Registration supplementary service and Wireless Terminal Information exchange additional network feature

## 1 Scope

This International Standard specifies the signalling protocol for the support of the Wireless Terminal Location Registration supplementary service (SS-WTLR) and the Wireless Terminal Information exchange additional network feature (ANF-WTINFO) at the Q reference point between Private Integrated services Network eXchanges (PINXs) connected together within a Private Integrated Services Network (PISN).

SS-WTLR is a supplementary service which enables a WTM user to register at, or deregister from, the current location within the PISN. The ability to register at different locations in the PISN at different times enables the WTM user to maintain the provided services (including the ability to make and receive calls) at different access points. Deregistration is used to inform the PISN that the WTM user is temporarily unable to make use of the provided services (including the receipt of calls).

ANF-WTINFO is an additional network feature which enables transfer of restriction information between Home PINX and Visitor PINX. ANF-WTINFO also enables the Visitor PINX or Home PINX to initiate a check of the current location information.

The Q reference point is defined in ISO/IEC 11579-1.

Supplementary Service specifications and Additional Network Feature specifications are produced in three stages and according to the method specified in ITU-T Rec. I.130. This International Standard contains the stage 3 specification for the Q reference point and satisfies the requirements identified by the stage 1 and stage 2 specifications in ISO/IEC 15428.

The signalling protocol for SS-WTLR and ANF-WTINFO uses certain aspects of the generic procedures for the control of supplementary services specified in ISO/IEC 11582.

This International Standard also specifies additional signalling protocol requirements for the support of interactions at the Q reference point between SS-WTLR and other supplementary services and ANFs.

This International Standard is applicable to PINXs which can interconnect to form a PISN.

## 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 annex A.

## 3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 11571:1998, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Networks - Addressing*

ISO/IEC 11574:2000, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Circuit-mode 64 kbit/s bearer services - Service description, functional capabilities and information flows*

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 11582:2002, *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*

ISO/IEC 13873:2003, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Inter-exchange signalling protocol - Call Diversion supplementary services*

ISO/IEC 15506:2003, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Inter-exchange signalling protocol - Message Waiting Indication supplementary service*

ISO/IEC 15428:1999, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Specification, functional model and information flows - Wireless Terminal Location Registration supplementary service and Wireless Terminal Information Exchange additional network feature*

ISO/IEC 15433:2003, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Inter-exchange signalling protocol - Wireless Terminal Authentication supplementary services*

ITU-T Rec. I.112:1993, *Vocabulary of terms for ISDNs*

ITU-T Rec. I.130:1988, *Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN (Blue Book)*

ITU-T Rec. I.210:1993, *Principles of telecommunication services supported by an ISDN and the means to describe them*

ITU-T Rec. Q.950:2000, *Supplementary services protocols, structure and general principles*

ITU-T Rec. Z.100:2002, *Specification and description language (SDL)*