

First edition  
2002-06-15

---

---

**Information technology —  
Telecommunications and information  
exchange between systems — Corporate  
Telecommunication Networks — Signalling  
interworking between QSIG and H.323 —  
Call completion supplementary services**

*Technologies de l'information — Télécommunications et échange  
d'information entre systèmes — Réseaux de télécommunications de  
corps — Travail de signalisation entre QSIG et H.323 — Compléments de  
service d'achèvement d'appel*

---

---

Reference number  
ISO/IEC 21991:2002(E)



This is a preview of "ISO/IEC 21991:2002". [Click here to purchase the full version from the ANSI store.](#)

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO/IEC 2002

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.ch](mailto:copyright@iso.ch)  
Web [www.iso.ch](http://www.iso.ch)

Printed in Switzerland

This is a preview of "ISO/IEC 21991:2002". Click here to purchase the full version from the ANSI store.

## Contents

	Page
Foreword	v
Introduction	vi
<b>1</b> Scope	<b>1</b>
<b>2</b> Conformance	<b>1</b>
<b>3</b> Normative references	<b>1</b>
<b>4</b> Definitions	<b>2</b>
<b>4.1</b> External definitions	<b>2</b>
<b>4.2</b> Other definitions	<b>2</b>
<b>4.2.1</b> Entity A	<b>2</b>
<b>4.2.2</b> Entity B	<b>2</b>
<b>4.2.3</b> Gateway	<b>2</b>
<b>4.2.4</b> IP network	<b>2</b>
<b>4.2.5</b> Leg A	<b>2</b>
<b>4.2.6</b> Scenario A1	<b>2</b>
<b>4.2.7</b> Scenario A2	<b>2</b>
<b>5</b> Acronyms	<b>3</b>
<b>6</b> Service architecture	<b>3</b>
<b>6.1</b> Service architecture for invocation and operation	<b>3</b>
<b>6.1.1</b> ISO/IEC 13870 service architecture	<b>3</b>
<b>6.1.2</b> H.450.9 service architecture	<b>4</b>
<b>6.1.3</b> Scenarios for interworking	<b>4</b>
<b>6.1.4</b> Selection of the same gateway for all phases	<b>4</b>
<b>6.2</b> Options	<b>4</b>
<b>7</b> Protocol interworking – General requirements	<b>5</b>
<b>8</b> Protocol interworking – Messages and APDUs	<b>5</b>
<b>8.1</b> Signalling phase 1 - invocation of call completion	<b>5</b>
<b>8.1.1</b> Scenario A1	<b>5</b>
<b>8.1.2</b> Scenario A2	<b>6</b>
<b>8.2</b> Signalling phase 2 – user B available notification	<b>6</b>
<b>8.2.1</b> Scenario A1	<b>7</b>
<b>8.2.2</b> Scenario A2	<b>8</b>
<b>8.3</b> Signalling phase 3 – CC call establishment	<b>9</b>
<b>8.3.1</b> Scenario A1	<b>9</b>
<b>8.3.2</b> Scenario A2	<b>9</b>
<b>8.4</b> Signalling phase 4 – cancellation of SS-CC	<b>9</b>
<b>8.4.1</b> Scenario A1	<b>10</b>
<b>8.4.2</b> Scenario A2	<b>10</b>
<b>9</b> Protocol interworking – content of APDUs	<b>10</b>
<b>9.1</b> APDU content mapping from QSIG to H.323	<b>11</b>

This is a preview of "ISO/IEC 21991:2002". [Click here to purchase the full version from the ANSI store.](#)

<b>9.1.1</b>	ccbsRequest/ccnrRequest invoke APDU mapping	<b>11</b>
<b>9.1.2</b>	ccbsRequest/ccnrRequest return result APDU mapping	<b>11</b>
<b>9.1.3</b>	ccCancel/ccExecPossible invoke APDU mapping	<b>11</b>
<b>9.2</b>	APDU content mapping from H.323 to QSIG	<b>12</b>
<b>9.2.1</b>	ccbsRequest/ccnrRequest invoke APDU mapping	<b>12</b>
<b>9.2.2</b>	ccbsRequest/ccnrRequest return result APDU mapping	<b>12</b>
<b>9.2.3</b>	ccCancel/ccExecPossible invoke APDU mapping	<b>12</b>
<b>Annexes</b>		
<b>A</b>	<b>Implementation Conformance Statement (ICS) proforma</b>	<b>13</b>
<b>B</b>	<b>Message flow examples</b>	<b>20</b>

This is a preview of "ISO/IEC 21991:2002". [Click here to purchase the full version from the ANSI store.](#)

## 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 3.

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 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.

ISO/IEC 21991 was prepared by ECMA (as ECMA-326) 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. Annex B is for information only.

## **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 call completion supplementary services between a Private Integrated Services Network (PISN) and a packet-based private telecommunication network based on the Internet Protocol (IP). It is further assumed that the protocol for the PISN part is that defined for the Q reference point (QSIG) and that 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.