

---

---

**Information technology —  
Telecommunications and information  
exchange between systems — Private  
Integrated Services Network —  
Specification, functional model and  
information flows — Make call request  
supplementary service**

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

*Technologies de l'information — Télécommunications et échange  
d'information entre systèmes — Réseau privé à intégration de  
services — Spécification, modèle fonctionnel et flux d'informations —  
Service supplémentaire de demande par appel*

<https://standards.iteh.ai/catalog/standards/sist/4dc49a2b-71c5-4300-b00c-2010397576dc/iso-iec-20113-2004>

**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.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[ISO/IEC 20113:2004](https://standards.iteh.ai/catalog/standards/sist/4ac45a2b-77c3-4566-b66c-20f0597378dc/iso-iec-20113-2004)

<https://standards.iteh.ai/catalog/standards/sist/4ac45a2b-77c3-4566-b66c-20f0597378dc/iso-iec-20113-2004>

© ISO/IEC 2004

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.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Conformance .....	1
3 Normative references .....	1
4 Terms and definitions .....	2
4.1 External definitions .....	2
4.2 Other definitions .....	2
5 Acronyms .....	3
6 SS-MCR stage 1 specification .....	3
6.1 Description .....	3
6.2 Procedures .....	3
6.3 Interactions with other Supplementary Services / Additional Network Features .....	5
6.4 Interworking considerations .....	8
6.5 Overall SDL .....	8
7 SS-MCR stage 2 specification .....	10
7.1 Functional model .....	10
7.2 Information flows .....	12
7.3 Functional Entity actions .....	14
7.4 Functional Entity behaviour .....	15
7.5 Allocation of Functional Entities to physical equipment .....	20
7.6 Interworking considerations .....	20

## 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 20113 was prepared by ECMA (as ECMA-343) 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.

ITeH STANDARD PREVIEW  
(standards.iteh.ai)  
ISO/IEC 20113:2004  
<https://standards.iteh.ai/catalog/standards/sist/4ac45a2b-77c3-4566-b66c-20f0597378dc/iso-iec-20113-2004>

## Introduction

This International Standard is one of a series defining 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 Make Call Request supplementary service.

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 JTC1, ITU-T, ETSI and other international and national standardization bodies. It represents a pragmatic and widely based consensus.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/IEC 20113:2004](#)

<https://standards.iteh.ai/catalog/standards/sist/4ac45a2b-77c3-4566-b66c-20f0597378dc/iso-iec-20113-2004>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[ISO/IEC 20113:2004](#)

<https://standards.iteh.ai/catalog/standards/sist/4ac45a2b-77c3-4566-b66c-20f0597378dc/iso-iec-20113-2004>

# Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Make call request supplementary service

## 1 Scope

This International Standard specifies supplementary service Make Call Request (SS-MCR), which is related, but not limited, to various basic services supported by Private Integrated Services Networks (PISNs). Basic services are specified in ISO/IEC 11574.

The supplementary service MCR enables a Requesting User to request a Co-operating User to establish a new Requested Call to a Destination User. This new Requested Call between the Co-operating and Destination User can be either a Basic call or call independent signalling connection.

Service specifications are produced in three stages, according to the method described in ETS 300 387. This International Standard contains the stage 1 and stage 2 specifications of SS-MCR. The stage 1 specification (Clause 6) specifies the supplementary service as seen by users of PISNs. The stage 2 specification (Clause 7) specifies the functional entities involved in the supplementary service and the information flows between them.

[ISO/IEC 20113:2004](https://standards.iteh.ai/catalog/standards/sist/4ac45a2b-77c3-4566-b66c-20f0597378dc/iso-iec-20113-2004)

<https://standards.iteh.ai/catalog/standards/sist/4ac45a2b-77c3-4566-b66c-20f0597378dc/iso-iec-20113-2004>

## 2 Conformance

In order to conform to this International Standard, a stage 3 standard shall specify signalling protocols and equipment behaviour that are capable of being used in a PISN which supports the supplementary service specified in this International Standard. This means that, to claim conformance, a stage 3 standard is required to be adequate for the support of those aspects of Clause 6 (stage 1) and Clause 7 (stage 2) which are relevant to the interface or equipment to which the stage 3 standard applies.

## 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 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*

ETS 300 387:1994, *Private Telecommunication Network (PTN); Method for the specification of basic and supplementary services*

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

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

ITU-T Rec. Z.100:1999, *Specification and Description Language*

## 4 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 4.1 External definitions

This International Standard uses the following terms defined in other documents:

— Basic Service	(ISO/IEC 11574)
— Call, Basic call	(ISO/IEC 11582)
— Call independent signalling connection	(ISO/IEC 11582)
— Call Independent	(ISO/IEC 11582)
— Call Related	(ISO/IEC 11582)
— Private Integrated services Network eXchange (PINX)	(ISO/IEC 11579-1)
— Private Integrated Services Network (PISN)	(ISO/IEC 11579-1)
— Service	(ITU-T Rec. I.112)
— Signalling	(ITU-T Rec. I.112)
— Supplementary Service	(ITU-T Rec. I.210)
— User	(ISO/IEC 11574)

### 4.2 Other definitions

#### 4.2.1

##### Co-operating User

The user who receives a Make Call Request and who shall set up a new Requested Call to the Destination User.

#### 4.2.2

##### Destination User

The called user of the Requested Call i.e. the user to whom the Co-operating User shall establish a Requested Call.

#### 4.2.3

##### Make Call Request

A request from the Requesting User for a new call (i.e. Requested Call) between a Co-operating User and a Destination User.



**4.2.4****Original Call**

The call between the Requesting User and the Co-operating User. The Original Call can be either a Basic call or a call independent signalling connection and is correlated with the Requested Call.

**4.2.5****Requested Call**

The call between the Co-operating User and the Destination User that is established by the Co-operating User due to a Make Call Request from the Requesting User. The Requested Call can either be a Basic call (with a specific Basic Service) or a call independent signalling connection and is correlated with the Original Call.

**4.2.6****Requesting User**

The User who sends a Make Call Request to the Co-operating User with the request to establish a specific Requested Call to the Destination User.

**5 Acronyms**

ANF	Additional Network Feature
FE	Functional Entity
ISDN	Integrated Services Digital Network
MCR	Make Call Request
PINX	Private Integrated services Network eXchange
PISN	Private Integrated Services Network
SDL	Specification and Description Language
SS	Supplementary Service

**6 SS-MCR stage 1 specification****6.1 Description****6.1.1 General description**

The supplementary service MCR enables a Requesting User to request a Co-operating User to establish a new Requested Call to a Destination User. This new Requested Call between the Co-operating User and the Destination User can either be a Basic call or a call independent signalling connection. The new Requested Call shall be correlated to the Original Call between the Requesting User and the Co-operating User.

**6.1.2 Qualifications on applicability to telecommunication services**

This supplementary service is applicable to all basic telecommunication services.

**6.2 Procedures****6.2.1 Provision / withdrawal**

SS-MCR may be provided or withdrawn after pre-arrangement with the service provider or may be generally available to all users.

## 6.2.2 Normal procedures

### 6.2.2.1 Activation, deactivation and interrogation

Not applicable.

### 6.2.2.2 Invocation and operation

A Requesting User may use SS-MCR to request the set up of a new Requested Call between a Co-operating User and a Destination User.

NOTE The Requesting User and the Destination User can be the same user (e.g. Requesting/Destination User is a Message Centre)

To invoke SS-MCR the Requesting User may use, if available, an existing signalling connection (either call-related or call-independent) with the Co-operating User, otherwise the Requesting User shall establish a call independent signalling connection to the Co-operating User in order to convey the following information:

- address information of the Destination User (e.g. Party Number);
- optionally, number information of the Co-operating User (e.g. Party Number);
- optionally, number information of the Requesting User (e.g. Party Number);
- an indication for a Basic Service, if a Basic call is requested, otherwise an indication for a call independent signalling connection;
- a correlation ID for the Original Call and the Requested Call;
- an indication whether to retain the Original Call after successful establishment of the Requested Call.

If the entity serving the Co-operating User supports SS-MCR, this entity may check whether the Requesting User is allowed to invoke SS-MCR and if a call independent signalling connection or a Basic call with the indicated Bearer Service can be established. Afterwards, the Co-operating User may be informed about the SS-MCR request. The Requested Call shall be either a Basic call with the requested Basic Service or a call independent signalling connection, due to the received request. Additionally the following information shall be sent to the Destination User:

- address information of the Requesting User and Co-operating User (i.e. Party Number of the Requesting User) if received;
- a correlation ID for the Original Call and the Requested Call.

If the Requested Call is successfully established, an appropriate indication shall be sent to the Requesting User. The Original Call shall be retained or cleared immediately after successful establishment of the Requested Call dependent on the corresponding indication received in the initial Make Call Request from the Requesting User. The Co-operating User is responsible for clearing of the Requested Call. In case of retention of the Original Call the Requesting User is responsible for clearing of the Original Call to the Co-operating User.

## 6.2.3 Exceptional procedures

### 6.2.3.1 Activation, deactivation and interrogation

Not applicable.

### 6.2.3.2 Invocation and operation

If the entity serving the Co-operating User does not support SS-MCR or if the validation of the request from the Requesting user fails or a call independent signalling connection or a Basic call with the indicated Basic Service cannot be established, an appropriate error indication shall be sent to the Requesting User. The Requesting User is responsible for clearing of the Original Call.

If the Co-operating User is busy when SS-MCR is invoked, an appropriate error indication shall be sent to the Requesting User. The Requesting User is responsible for clearing the Original Call.

## 6.3 Interactions with other Supplementary Services / Additional Network Features

Interactions with other supplementary services and ANFs for which PISN standards were available at the time of publication of this International Standard are specified below.

### 6.3.1 Calling Line Identification Presentation (SS-CLIP)

No interaction.

### 6.3.2 Connected Line Identification Presentation (SS-COLP)

No interaction.

### 6.3.3 Calling/Connected Line Identification Restriction (SS-CLIR)

No interaction.

### 6.3.4 Calling Name Identification Presentation (SS-CNIP)

No interaction.

<https://standards.iteh.ai/catalog/standards/sist/4ac45a2b-77c3-4566-b66c-20f0597378dc/iso-iec-20113-2004>

### 6.3.5 Calling/Connected Name Identification Restriction (SS-CNIR)

No interaction.

### 6.3.6 Connected Name Identification Presentation (SS-CONP)

No interaction.

### 6.3.7 Call Forwarding Unconditional (SS-CFU)

If the Co-operating User has activated SS-CFU, the request to set up a new Requested Call shall not be forwarded. It is an implementation option for the entity serving the Co-operating User to either provide SS-MCR or to send an error indication towards the Requesting User.

SS-CFU, activated at the Destination User, is not affected by SS-MCR, i.e. the Requested Call may be forwarded.

### 6.3.8 Call Forwarding Busy (SS-CFB)

If a Co-operating User has activated SS-CFB and is in busy condition, the request to set up a new Requested Call shall not be forwarded and an error indication shall be provided towards the Requesting user.

SS-CFB, activated at the Destination User, is not affected by SS-MCR, i.e. the Requested Call may be forwarded.