

---

---

**Information technology —  
Telecommunications and information  
exchange between systems — Private  
Integrated Services Network —  
Specification, functional model and  
information flows — Short message service**

iTeh STANDARD PREVIEW

*Technologies de l'information — Télécommunications et échange  
d'information entre systèmes — Réseaux privés avec intégration de  
services — Spécification, modèle fonctionnel et débit des informations —  
Service de message court*

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

**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 21989:2002](https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002)

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

© 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

## 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> Command	<b>2</b>
<b>4.2.2</b> Message Centre	<b>2</b>
<b>4.2.3</b> Message Centre Case	<b>2</b>
<b>4.2.4</b> ScAlert	<b>2</b>
<b>4.2.5</b> Service Centre (SC)	<b>3</b>
<b>4.2.6</b> Short Message (SM)	<b>3</b>
<b>4.2.7</b> Short Message Waiting Data	<b>3</b>
<b>4.2.8</b> Status Report	<b>3</b>
<b>4.2.9</b> Terminal Case	<b>3</b>
<b>5</b> Acronyms	<b>3</b>
<b>6</b> SS-Short Message Service stage 1 specification	<b>4</b>
<b>6.1</b> Description	<b>4</b>
<b>6.1.1</b> General description	<b>4</b>
<b>6.1.2</b> Qualifications on applicability to telecommunications services	<b>4</b>
<b>6.2</b> Procedures	<b>4</b>
<b>6.2.1</b> Provision/withdrawal	<b>4</b>
<b>6.2.2</b> Normal procedures	<b>4</b>
<b>6.2.3</b> Exceptional procedures	<b>5</b>
<b>6.3</b> Interactions with other Supplementary Services/ Additional Network Features	<b>5</b>
<b>6.3.1</b> Calling Line Identification Presentation (SS-CLIP)	<b>5</b>
<b>6.3.2</b> Connected Line Identification Presentation (SS-COLP)	<b>5</b>
<b>6.3.3</b> Calling/Connected Line Identification Restriction (SS-CLIR)	<b>5</b>
<b>6.3.4</b> Calling Name Identification Presentation (SS-CNIP)	<b>5</b>
<b>6.3.5</b> Calling/Connected Name Identification Restriction (SS-CNIR)	<b>5</b>
<b>6.3.6</b> Connected Name Identification Presentation (SS-CONP)	<b>5</b>
<b>6.3.7</b> Completion of Calls to Busy Subscriber (SS-CCBS)	<b>5</b>
<b>6.3.8</b> Completion of Calls on No Reply (SS-CCNR)	<b>5</b>
<b>6.3.9</b> Call Transfer (SS-CT)	<b>5</b>
<b>6.3.10</b> Call Forwarding Unconditional (SS-CFU)	<b>6</b>
<b>6.3.11</b> Call Forwarding Busy (SS-CFB)	<b>6</b>
<b>6.3.12</b> Call Forwarding No Reply (SS-CFNR)	<b>6</b>
<b>6.3.13</b> Call Deflection (SS-CD)	<b>6</b>
<b>6.3.14</b> Path Replacement (ANF-PR)	<b>6</b>
<b>6.3.15</b> Call Offer (SS-CO)	<b>6</b>
<b>6.3.16</b> Call Intrusion (SS-CI)	<b>6</b>

Iteh STANDARD PREVIEW  
(standards.iteh.ai)

ISO/IEC 21989:2002  
Service stage 1 specification  
https://standards.iteh.ai/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002

6.3.17	Do Not Disturb (SS-DND)	6
6.3.18	Do Not Disturb Override (SS-DNDO)	6
6.3.19	Advice of Charge (SS-AOC)	6
6.3.20	Recall (SS-RE)	6
6.3.21	Call Interception (ANF-CINT)	6
6.3.22	Transit Counter (ANF-TC)	6
6.3.23	Route Restriction Class (ANF-RRC)	6
6.3.24	Message Waiting Indication (SS-MWI)	6
6.3.25	Wireless Terminal Location Registration (SS-WTLR)	6
6.3.26	Wireless Terminal Mobility Incoming Call (ANF-WTMI)	6
6.3.27	Wireless Terminal Mobility Outgoing Call (ANF-WTMO)	6
6.3.28	Authentication of a WTM user (SS-WTAT)	6
6.3.29	Authentication of the PISN (SS-WTAN)	6
6.3.30	Private User Mobility Incoming Call (ANF-PUMI)	7
6.3.31	Private User Mobility Outgoing Call (ANF-PUMO)	7
6.3.32	Private User Mobility Registration (SS-PUMR)	7
6.3.33	Common Information (ANF-CMN)	7
6.3.34	Call Priority Interruption (Protection) (SS-CPI(P))	7
6.3.35	Single Step Call Transfer (SS-SSCT)	7
6.3.36	Simple Dialog (SS-SD)	7
6.3.37	Call Identification and Call Linkage (ANF-CIDL)	7
6.4	Interworking considerations	7
6.5	Overall SDL	8
7	Short Message Service stage 2 description	10
7.1	Functional model	10
7.1.1	Functional model description	10
7.1.2	Description of Functional Entities	10
7.1.3	Relationship of functional model to Basic Call functional model	12
7.2	Information flows	12
7.2.1	Definition of information flows	12
7.2.2	Information flow sequences	20
7.3	Functional Entity actions	25
7.3.1	Functional Entity actions of FE1	25
7.3.2	Functional Entity actions of FE2	25
7.3.3	Functional Entity actions of FE3	26
7.3.4	Functional Entity actions of FE4	26
7.3.5	Functional Entity actions of FE5	26
7.3.6	Functional Entity actions of FE6	27
7.3.7	Functional Entity actions of FE7	27
7.4	Functional Entity behaviour	27
7.4.1	Behaviour of FE1	28
7.4.2	Behaviour of FE2	29
7.4.3	Behaviour of FE3	29
7.4.4	Behaviour of FE4	31
7.4.5	Behaviour of FE5	34
7.4.6	Behaviour of FE6	34
7.4.7	Behaviour of FE7	35
7.5	Allocation of Functional Entities to physical equipment	37
7.6	Interworking considerations	37
<b>Annex A - Description of PDU elements</b>		<b>38</b>

STANDARD PREVIEW  
(standards.iteh.ai)

ISO/IEC 21989:2002

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

## 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 21989 was prepared by ECMA (as ECMA-324) 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.

**ITeH STANDARD PREVIEW**  
**(standards.iteh.ai)**  
ISO/IEC 21989:2002  
<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

## Introduction

This International Standard is one of a series of Standards 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 Short Message 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 JTC 1, 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 21989:2002](https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002)

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

# Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Short message service

## 1 Scope

This International Standard specifies the Short Message Service (SMS).

SMS enables a user to send and receive Short Messages (SMs) to and from another user.

This service is based on GSM 03.40. The Service Centre functionality described in this International Standard is equal to the functionality of a Service Centre in GSM 03.40. Thus, for interoperability with a GSM network, it is only necessary to implement a QSIG interface.

NOTE 1 - The interworking with other air interfaces is not precluded, but is outside the scope of this International Standard.

NOTE 2 - The Short Message Service is a special kind of basic service but is described in this document in the style of a supplementary service.

Supplementary 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 SMS. The stage 1 specification (clause 6) specifies the service as seen by users of PISNs. The stage 2 specification (clause 7) identifies the functional entities involved in the service and the information flows between them.

## 2 Conformance

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

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 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 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 and maintain registers of currently valid International Standards.

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 13864:1995, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Specification, functional model and information flows - Name identification supplementary services*

ISO/IEC 15505:2000, *Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network (PISN) - Specification, Functional Model and Information Flows - Message Waiting Indication Supplementary Service*

ETSI GTS GSM 03.38, *Digital cellular telecommunications systems (Phase 2+); Alphabets and language-specific information*

ETSI TS 100 901, *Digital cellular telecommunications systems (Phase 2+); Technical realization of the Short Message Service (SMS) (GSM 03.40)*

ETSI TS 101 032, *Digital cellular telecommunications systems (Phase 2+); Compression algorithm for text messaging services (GSM 03.42)*

ETSI TS 100 942, *Digital cellular telecommunications systems (Phase 2+); Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface (GSM 04.11)*

ETSI ETS 300 599, *Digital cellular telecommunications systems (Phase 2+); Mobile Application Part (MAP) specification (GSM 09.02)*

ETSI ETS 300 387, *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 (SDL)*

## 4 Definitions

For the purposes of this International Standard, the following definitions apply.

### 4.1 External definitions

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

- Basic Service (ITU-T Rec. I.210)
- 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)

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)  
<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

### 4.2 Other definitions

NOTE 3 - Further PDU elements are described in annex A.

#### 4.2.1 Command

A Short Message data unit which enables the Sending User to request the Service Centre to perform a certain action, which might be related to a previously sent Short Message from the same Sending User.

As far as acknowledging and delivery is concerned, Commands are treated like Short Messages. In the case of certain Commands a Status Report may be sent in response from the SC which contains the outcome of the action.

#### 4.2.2 Message Centre

The entity that activates or deactivates the Message Waiting Indication against the Receiving User as a result of the storage or retrieval of Short Messages. The Message Centre can serve as a sending, storing and receiving entity for Short Messages on behalf of the Sending and/ or the Receiving User.

#### 4.2.3 Message Centre Case

This describes that either the Sending Users terminal or the Receiving Users terminal or both are not able to handle the procedures that are required by the SMS. In this case a Message Centre can act on behalf of these terminals. The procedures how a user can compose and retrieve SMS related information via a Message Centre are out of the scope of this International Standard.

#### 4.2.4 ScAlert

Information provided to an SC that has previously initiated unsuccessful Short Message delivery attempt(s) to a specific Receiving User, that the Receiving User is now recognised to have recovered operation or to have memory available again.



#### 4.2.5 Service Centre (SC)

A function within the network that receives Short Messages from Sending Users. The SC is responsible for the relaying and store-and-forwarding of these Short Messages to the Receiving Users.

If a Receiving User is not able to receive a Short Message, the Service Centre has to store the Short Message and attempt to deliver the Short Message again at a later time. The Service Centre is responsible for a Short Message until it is successfully delivered to the Receiving User or the Validity Period expires.

Depending on the implementation of Short Message Waiting Data the SC either repeats the delivery attempt automatically in certain intervals or attempts to deliver the Short Message upon reception of a ScAlert information.

An SC may receive Commands from the Sending User and perform the requested actions.

Additionally, the Service Centre may provide Status Reports to a Sending User.

#### 4.2.6 Short Message (SM)

Data unit containing the Short-Message-Text and additional data necessary for the transmission of the Short-Message-Text from the Sending to the Receiving User.

#### 4.2.7 Short Message Waiting Data

SMS user specific information containing address information of one or more SCs, which unsuccessfully attempted to deliver a Short Message to a Receiving User while the user was not able to receive the Short Message (e.g. did not have memory available or was not reachable). The Short Message Waiting Data is used to alert the SC when the Receiving User has memory available or is reachable again.

#### 4.2.8 Status Report

Information optionally sent from the SC to the Sending User containing the status of a Short Message submitted to a Receiving User or the outcome of a Command submitted to an SC. A Status Report for a Command or a Short Message is sent from the SC to the Sending User if it has been requested in the Short Message or Command.

#### 4.2.9 Terminal Case

This describes that either the Sending Users terminal or the Receiving Users terminal or both are able to handle the procedures that are required by the SMS.

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

## 5 Acronyms

ANF	Additional Network Feature
FE	Functional Entity
PINX	Private Integrated services Network eXchange
PISN	Private Integrated Services Network
PNP	Private Numbering Plan
SC	Service Centre
SCTS	Service-Centre-Time-Stamp
SDL	Specification and Description Language
SM	Short Message
SMS	Short Message Service
SMSC	Short Message Service Centre
SMWD	Short Message Waiting Data
VP	Validity Period

## 6 SS-Short Message Service stage 1 specification

### 6.1 Description

#### 6.1.1 General description

The Short Message Service provides a means of sending messages of limited size point-to-point between network users. The provision of SMS makes use of a Service Centre which acts as a store-and-forward centre for Short Messages, i.e. all Short Messages are sent using a Service Centre which receives Short Messages from the Sending User, stores them and delivers them to the Receiving User. Thus the network needs to support the transfer of Short Messages between Sending User, Service Centre and Receiving User.

The Sending User sends the Short Message to the Service Centre where the Short Message is stored. The Service Centre attempts to deliver the Short Message to the Receiving User. If a Short Message cannot be delivered within a specific time (Validity Period) the Service Centre deletes the Short Message.

Other messages besides the user defined Short Messages can be sent using SMS:

- Status Reports inform the Sending User about the status of a previously sent Short Message or Command;
- Commands allow users to manipulate Short Messages already stored in a Service Centre or the behaviour of the Service Centre with regard to the Status Report procedure.

NOTE 4 - The functionality of the Service Centre in this specification is identical to the functionality of a Service Centre in GSM.

#### 6.1.2 Qualifications on applicability to telecommunications services

This service does not apply directly to any basic telecommunication service.

### 6.2 Procedures

#### 6.2.1 Provision/withdrawal

SMS may be provided after pre-arrangement with the service provider, or may be available generally to all users. SMS may be withdrawn on request of the user or for administrative reasons.

#### 6.2.2 Normal procedures

##### 6.2.2.1 Activation/deactivation/registration/interrogation

Not applicable.

##### 6.2.2.2 Invocation and operation

All information shall be delivered by setting up a new call independent connection. Release of the call independent connection is in the responsibility of its initiator.

###### 6.2.2.2.1 Normal operation

A Sending User shall be able to submit a Short Message to a Service Centre at any time, independently of whether or not there is a call in progress. An indication shall always be returned to the Sending User; either confirming that the SC received the Short Message or informing the Sending User that it was not possible to deliver the Short Message to the SC, including the reason why.

A Sending User shall be able to submit a Command to a Service Centre at any time, independently of whether or not there is a call in progress.

The Service Centre shall receive Commands from the Sending User and execute them. Upon reception of a Command the Service Centre shall execute the Command on the Short Message specified by the Short Message Number and the Originating-Address given in the Command information. An indication shall always be returned to the Sending User, either confirming the reception/ execution of the Command or indicating that the reception/ execution of the command failed, including the reason why.

A Receiving User shall be able to receive a Short Message from a Service Centre at any time, independently of whether or not there is a call in progress. An indication shall always be returned to the SC; either confirming that the Receiving User received the Short Message, or indicating that the reception of the Short Message failed, including the reason why.

If either a Short Message or a Command submitted to the Service Centre from a Sending User requests a Status Report, and the Status Report capabilities are included in the SC, it shall return one or more Status Reports to the Sending User. The Sending User shall be able to receive Status Reports from a Service Centre at any time, independently of whether or not there is a call in progress. An indication shall always be returned to the Service Centre, either confirming the reception of the Status Report or indicating that the reception failed, including the reason why.

It shall be possible for the Sending User to send several correlated Short Messages, which together form a longer Message (Concatenated Short Message).

NOTE 5 - The acknowledging of a successful reception of a Short Message or a Status Report by the receiving entity does not imply that the Short Message or the Status Report has been displayed or in any other way delivered to the user.

### 6.2.3 Exceptional procedures

#### 6.2.3.1 Activation/deactivation/interrogation

Not applicable.

#### 6.2.3.2 Invocation and operation

If the Service Centre is not able to receive a Short Message from the Sending User it shall return an indication to the Sending User containing the Failure-Cause.

If the Service Centre is not able to receive/execute a command submitted from the Sending User it shall return an indication to the Sending User containing the Failure-Cause.

If the Receiving User is not able to receive a Short Message delivered from the Service Centre the Receiving User shall return an indication to the Service Centre containing the Failure-Cause.

If the Sending User is not able to receive a Status Report from the Service Centre the Sending User shall return an indication to the Service Centre containing the Failure-Cause.

If the Service Centre is not able to deliver a Short Message to a Receiving User because there is no memory available or the user is not reachable, the entity responsible for that Receiving User shall set an internal indication that a Service Centre attempted to deliver a Short Message to this user and store the address of that SC in the Short Message Waiting Data. When the Receiving User has memory available or is reachable again the entity shall send an ScAlert to the Service Centre, containing the address of the Receiving User and upon reception of an ScAlert confirmation delete the SC address from the SMWD list.

The implementation of the Short Message Waiting Data is optional. If it is not implemented it is up to the SC to repeat the delivery attempt periodically until the Validity Period expires.

### 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 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.

#### 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 Completion of Calls to Busy Subscriber (SS-CCBS)

No interaction.

#### 6.3.8 Completion of Calls on No Reply (SS-CCNR)

No interaction.

#### 6.3.9 Call Transfer (SS-CT)

No interaction.

**6.3.10 Call Forwarding Unconditional (SS-CFU)**

Call forwarding shall not apply for Short Message Service.

**6.3.11 Call Forwarding Busy (SS-CFB)**

Call forwarding shall not apply for Short Message Service.

**6.3.12 Call Forwarding No Reply (SS-CFNR)**

Call forwarding shall not apply for Short Message Service.

**6.3.13 Call Deflection (SS-CD)**

Call deflection shall not apply for Short Message Service.

**6.3.14 Path Replacement (ANF-PR)**

No interaction.

**6.3.15 Call Offer (SS-CO)**

No interaction.

**6.3.16 Call Intrusion (SS-CI)**

No interaction.

**6.3.17 Do Not Disturb (SS-DND)**

Do Not Disturb shall not apply for Short Message Service.

**6.3.18 Do Not Disturb Override (SS-DNDO)**

No interaction.

**6.3.19 Advice of Charge (SS-AOC)**

No interaction.

**6.3.20 Recall (SS-RE)**

No interaction.

**6.3.21 Call Interception (ANF-CINT)**

Call Interception shall not apply for Short Message Service.

**6.3.22 Transit Counter (ANF-TC)**

No interaction.

**6.3.23 Route Restriction Class (ANF-RRC)**

No interaction.

**6.3.24 Message Waiting Indication (SS-MWI)**

The Message Centre may act as a sending entity for Short Messages and Commands and as a storage entity for Short Messages and shall indicate the reception of new Short Messages to the Receiving User.

**6.3.25 Wireless Terminal Location Registration (SS-WTLR)**

No interaction.

NOTE 6 - A Short Message may be directed to the new location.

**6.3.26 Wireless Terminal Mobility Incoming Call (ANF-WTMI)**

No interaction.

**6.3.27 Wireless Terminal Mobility Outgoing Call (ANF-WTMO)**

No interaction.

**6.3.28 Authentication of a WTM user (SS-WTAT)**

No interaction.

**6.3.29 Authentication of the PISN (SS-WTAN)**

No interaction.

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

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>

**6.3.30 Private User Mobility Incoming Call (ANF-PUMI)**

No interaction.

**6.3.31 Private User Mobility Outgoing Call (ANF-PUMO)**

No interaction.

**6.3.32 Private User Mobility Registration (SS-PUMR)**

No interaction.

**6.3.33 Common Information (ANF-CMN)**

No interaction.

**6.3.34 Call Priority Interruption (Protection) (SS-CPI(P))**

No interaction.

**6.3.35 Single Step Call Transfer (SS-SSCT)**

No interaction.

**6.3.36 Simple Dialog (SS-SD)**

No interaction.

**6.3.37 Call Identification and Call Linkage (ANF-CIDL)**

No interaction.

**6.4 Interworking considerations**

A Service Centre may be connected to other networks than a PISN and receive Short Messages from and send Short Messages to the other networks.

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

[ISO/IEC 21989:2002](https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002)

<https://standards.iteh.ai/catalog/standards/sist/04008ebf-c357-4412-b785-6598e35fa62e/iso-iec-21989-2002>