



**SLOVENSKI STANDARD**  
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**01-april-2003**

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Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 17: Include Call (IC)

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# ETSI EN 300 392-10-17 V1.2.1 (2002-05)

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*European Standard (Telecommunications series)*

**Terrestrial Trunked Radio (TETRA);  
Voice plus Data (V+D);  
Part 10: Supplementary services stage 1;  
Sub-part 17: Include Call (IC)**

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## Keywords

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## Foreword

This European Standard (Telecommunications series) has been produced by ETSI Project Terrestrial Trunked Radio (TETRA).

The present document is part 10, sub-part 17 of a multi-part deliverable covering Voice plus Data (V+D), as identified below:

- EN 300 392-1: "General network design";
- EN 300 392-2: "Air Interface (AI)";
- EN 300 392-3: "Interworking at the Inter-System Interface (ISI)";
- ETS 300 392-4: "Gateways basic operation";
- EN 300 392-5: "Peripheral Equipment Interface (PEI)";
- EN 300 392-7: "Security";
- EN 300 392-9: "General requirements for supplementary services";
- EN 300 392-10: "Supplementary services stage 1";**
  - Sub-part 1: "Call identification";
  - Sub-part 2: "Call report";
  - Sub-part 3: "Talking Party Identification (TPI)";
  - Sub-part 4: "Call Forwarding (CF)";
  - Sub-part 5: "List Search Call (LSC)";
  - Sub-part 6: "Call Authorized by Dispatcher (CAD)";
  - Sub-part 7: "Short number addressing";
  - Sub-part 8: "Area selection";
  - Sub-part 9: "Access priority";
  - Sub-part 10: "Priority Call (PC)";
  - Sub-part 11: "Call Waiting (CW)";
  - Sub-part 12: "Call Hold (CH)";
  - Sub-part 13: "Call completion to busy subscriber";
  - Sub-part 14: "Late Entry (LE)";

- Sub-part 15: "Transfer of control";
- Sub-part 16: "Pre-emptive priority call";
- Sub-part 17: "Include Call (IC)";**
- Sub-part 18: "Barring of Outgoing Calls (BOC)";
- Sub-part 19: "Barring of Incoming Calls (BIC)";
- Sub-part 20: "Discreet Listening (DL)";
- Sub-part 21: "Ambience Listening (AL)";
- Sub-part 22: "Dynamic Group Number Assignment (DGNA)";
- Sub-part 23: "Call completion on no reply";
- Sub-part 24: "Call Retention (CRT)";
- EN 300 392-11: "Supplementary services stage 2";
- EN 300 392-12: "Supplementary services stage 3";
- ETS 300 392-13: "SDL model of the Air Interface (AI)";
- ETS 300 392-14: "Protocol Implementation Conformance Statement (PICS) proforma specification";
- TS 100 392-15: "TETRA frequency bands, duplex spacings and channel numbering";
- TS 100 392-16: "Network Performance Metrics";
- TS 100 392-17: "TETRA V+D and DMIO Release 1.1 specifications";

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Date of latest publication of new National Standard or endorsement of this EN (dop/e):	28 February 2003
Date of withdrawal of any conflicting National Standard (dow):	28 February 2003



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# 1 Scope

The present document defines the stage 1 specifications of the Include Call (IC) supplementary service for the Trans-European Trunked RAdio as provided by European operators. Stage 1 is an overall service description from the users point of view but does not deal with the details of the human interface itself.

The present document specifies the service description of the supplementary service and the procedures to be expected with successful and unsuccessful outcomes. In addition the present document specifies the interactions with other TETRA supplementary services and interworking considerations.

Charging principles are outside the scope of the present document.

The IC supplementary service enables the served user, while having a call in progress, to make a new call and have the new party included in the original call.

The present document applies to TETRA speech teleservices and speech bearer services only.

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# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

[1] ITU-T Recommendation Z.100: "Specification and Description Language (SDL)".

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# 3 Definitions and abbreviations

## 3.1 Definitions

For the purposes of the present document the following terms and definitions apply:

**bearer service:** type of telecommunication service that provides the capability for the transmission of signals between user-network interfaces

**call owner:** individual user who controls a multipoint call and is able to clear it down

NOTE: It is normally the user who has originally set up the multipoint call or has obtained the control following a successful SS-TC invocation.

**resulting call:** call resulting from the inclusion of the second call in the original call

**second call:** call originated by the served user after invocation of the IC supplementary service, to be included in the original call

**supplementary service:** service that modifies or supplements a bearer service or a teleservice

NOTE: A supplementary service cannot be offered to a customer as a stand-alone service; it should be offered in combination with a bearer service or a teleservice.

**Switching and Management Infrastructure (SwMI):** All of the TETRA equipment for a Voice plus Data (V+D) network except for subscriber terminals. The SwMI enables subscriber terminals to communicate with each other via the SwMI.

**teleservice:** type of telecommunications service that provides the complete capability, including terminal equipment functions, for communication between users according to agreed protocols

**(Served) User A:** specific (individual) user who invokes the supplementary service

NOTE: If the original call is a multipoint call, only the call owner of the original call is allowed to invoke the IC supplementary service.

**User B:** The other party in the original call. It can be either an individual user (the called party in an individual call) or a group of users (if the original call is a multipoint call).

**User C:** The other party in the second call. It can be either an individual user (the called party in an individual call) or a group of users (if the second call is a multipoint call).

## 3.2 Abbreviations

### 3.2.1 General abbreviations

For the purposes of the present document the following general abbreviations apply:

ISDN	Integrated Services Digital Network
SDL	(Functional) Specification and Description Language
SS	Supplementary Service

NOTE: The abbreviation SS is only used when referring to a specific supplementary service.

SwMI	Switching and Management Infrastructure
TETRA	Trans-European Trunked RAdio

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### 3.2.2 Supplementary service abbreviations

For the purposes of the present document the following supplementary service abbreviations apply:

AL	Ambience Listening
AP	Access Priority
BIC	Barring of Incoming Calls
BOC	Barring of Outgoing Calls
CAD	Call Authorized by Dispatcher
CCBS	Call Completion to Busy Subscriber
CCNR	Call Completion on No Reply
CRT	Call Retention
CW	Call Waiting
DGNA	Dynamic Group Number Assignment
DL	Discreet Listening
HOLD	call HOLD
IC	Include Call
LE	Late Entry
LSC	List Search Call
PC	Priority Call
PPC	Pre-emptive Priority Call
SNA	Short Number Addressing
TC	Transfer of Control of Call
TPI	Talking Party Identification

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## 4 Conformance

Not applicable.

## 5 SS-IC stage 1 specification

### 5.1 Description

#### 5.1.1 General description

Include call is a supplementary service which enables a served User A, while being involved in an active call (original call) with User B, to make a second call to User C and have this new party included in the original call.

#### 5.1.2 Qualifications on applicability to telecommunication services

This supplementary service is applicable to TETRA speech teleservices and to TETRA speech bearer services.

### 5.2 Procedures

#### 5.2.1 Provision/Withdrawal

SS-IC may be provided after pre-arrangement with the service provider (by means of service profile control), or may be available generally to all users. SS-IC may be withdrawn on request of the user or for administrative reasons. Possible limitations (e.g. maximum number of successive invocations of SS-IC) shall be an implementation matter.

#### 5.2.2 Normal procedures

##### 5.2.2.1 Activation/Deactivation/Definition/Registration/Interrogation/Cancellation

SS-IC shall be permanently activated by the service provider as a result of the provision. SS-IC shall be deactivated by the service provider as a result of withdrawal.

###### 5.2.2.1.1 Definition

Definition is not applicable.

###### 5.2.2.1.2 Registration

Registration is not applicable.

###### 5.2.2.1.3 Interrogation

Interrogation is not applicable. User will be informed the reason of a failed SS-IC invocation.

###### 5.2.2.1.4 Cancellation

User A can interrupt SS-IC operation before completion using an appropriate basic call control procedure.

##### 5.2.2.2 Invocation and operation

SS-IC shall be invoked by the served User A.

The served User A is initially involved in an active call (original call) with User B. If the original call is an individual call, any of the two parties may invoke SS-IC. If the original call is a multipoint call, User A shall be the call owner of the original call. When User A invokes SS-IC to an individual User C, the SwMI shall include him into the ongoing call as soon as User C has responded positively. When User A invokes SS-IC to a user group C, the SwMI shall immediately include the user group C into the ongoing call. SS-IC invocation shall not produce any interruption in the original service.