



# SLOVENSKI STANDARD

## SIST ETS 300 392-10-24 E2:2003

01-december-2003

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**Prizemni snopovni radio (TETRA) – Govor in podatki (V+D) – 10. del: Dopolnilne storitve stopnje 1 – 24. poglavje: Ohranitev klica (CRT)**

Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Sub-part 24: Call Retention (CRT)

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33.070.10

Prizemni snopovni radio  
(TETRA)

Terrestrial Trunked Radio  
(TETRA)

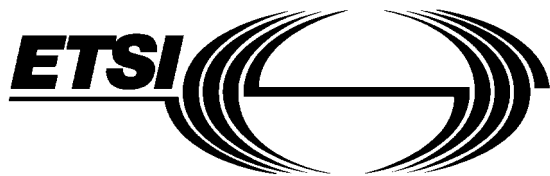
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**Terrestrial Trunked Radio (TETRA);  
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Part 10: Supplementary services stage 1;  
Sub-part 24: Call Retention (CRT)**

## ETSI

European Telecommunications Standards Institute

### ETSI Secretariat

**Postal address:** F-06921 Sophia Antipolis CEDEX - FRANCE

**Office address:** 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

**Internet:** secretariat@etsi.fr - <http://www.etsi.org>

Tel.: +33 4 92 94 42 00 - Fax: +33 4 93 65 47 16

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## Foreword

This European Telecommunication Standard (ETS) has been produced by the Terrestrial Trunked Radio (TETRA) Project of the European Telecommunications Standards Institute (ETSI).

This ETS is a multi-part standard and will consist of the following parts:

- Part 1: "General network design";
- Part 2: "Air Interface (AI)";
- Part 3: "Interworking at the Inter-System Interface (ISI)";
- Part 4: "Gateways basic operation";
- Part 5: "Peripheral Equipment Interface (PEI)";
- Part 6: "Line connected Station (LS)";
- Part 7: "Security";
- Part 9: "General requirements for supplementary services";
- Part 10: "Supplementary services stage 1";**
- Part 11: "Supplementary services stage 2";
- Part 12: "Supplementary services stage 3";
- Part 13: "SDL model of the Air Interface (AI)";
- Part 14: "Protocol Implementation Conformance Statement (PICS) proforma specification".

Transposition dates	
Date of adoption of this ETS:	14 April 2000
Date of latest announcement of this ETS (doa):	31 July 2000
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 January 2001
Date of withdrawal of any conflicting National Standard (dow):	31 January 2001

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## 1 Scope

This ETS specifies the supplementary service Call Retention SS-CRT which is applicable to various basic services supported by TETRA SwMIs. Basic services are specified in ETS 300 392-2 [4].

SS-CRT is a supplementary service which applies either during call establishment or once call is established to protect a call from pre-emption by another call of lower priority.

Supplementary service specifications are produced in three stages, according to the method described in ITU-T Recommendation I.210 [2]. The present document contains the stage 1 specifications of SS-CRT. The stage 1 descriptions specify the supplementary services as seen by users of networks.

This ETS is applicable to circuit mode TETRA V+D tele-services and bearer services. This ETS is not applicable to TETRA Short Data Service (SDS).

Man Machine Interfaces and charging principles are outside the scope of this ETS.

This second edition of this ETS is based on the latest edition of ECMA-263 [1]. The first edition of this ETS was drafted at a time where no published text of ECMA-263 [1] existed. Additions to ECMA-263 [1] have been made to take into account particular TETRA specifics such as group calls and to include user requirements and situations not addressed in ECMA-263 [1].

## 2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] ECMA-263 (1997): "Private Integrated Services Network (PISN) - Specification, Functional Model and Information Flows - Call Priority Interruption and Call Priority Interruption Protection Supplementary Services (CPI(P)SD)".
- [2] ITU-T Recommendation I.210 (1993): "Principles of telecommunication services supported by an ISDN and the means to describe them".
- [3] ITU-T Recommendation Z.100 (1993): "CCITT Specification and description language (SDL)".
- [4] ETSI ETS 300 392-2 (1995): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 2: Air Interface (AI)".
- [5] ETSI ETS 300 392-10-24 (1996): "Terrestrial Trunked Radio (TETRA); Voice plus Data (V+D); Part 10: Supplementary services stage 1; Part 10-24: Call retention".

## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of this ETS, the following definitions apply:

**Call Priority Interruption Capability Level (CPICL):** parameter indicating the priority of a call (ECMA-263); will be used in case of interworking

**Call Priority Interruption Protection Level (CPIPL):** parameter indicating a level of protection of a call against interruption from other calls (ECMA-263); will be used in case of interworking

**Call Retention Value (CRV):** value which defines the relative level of protection of established calls against pre-emption

**established call:** active call that is selected for interruption

**impending priority interruption state:** condition of an established call and a priority call after provision of an Impending priority interruption warning notification and before the release of the established call

**impending priority interruption warning notification:** notification provided before the release of the established call

**non-priority call:** call that has not been assigned any level of priority

NOTE 1: A non-priority call may be a protected call.

**non-protected call:** call that has not been assigned any level of protection

NOTE 2: A non-protected call may be a priority call.

**priority call:** call that has been assigned some level of priority (by a PC or PPC value)

NOTE 3: A priority call may also be a protected call.

**protected call:** call that has been assigned some level of protection (by a Call Retention Value)

NOTE 4: A protected call may also be a priority call.

**served user:** user who requests SS-CRT

**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

**time to priority interruption:** duration of the impending priority interruption state

**unprotected call:** call which has not been assigned a CRV value or has a CRV value equal to zero

## 3.2 Symbols

For the purposes of this ETS, there are no additional symbols excepted the symbols used in the SDL representation (ITU-T Recommendation Z.100 [3]).

## 3.3 Abbreviations

### 3.3.1 General abbreviations

For the purposes of this ETS, the following general abbreviations apply:

GTSI	Group TETRA Subscriber Identity
ISDN	Integrated Services Digital Network
ISI	Inter System Interface
ITSI	Individual TETRA Subscriber Identity
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	Terrestrial Trunked RAdio

### 3.3.2 Supplementary service abbreviations

For the purposes of this ETS, the following Supplementary Service abbreviations apply:

AL	Ambience Listening
AoC	Advice of Charge
AP	Access Priority
AS	Area Selection
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
CFB	Call Forwarding on Busy
CFNRy	Call Forwarding on No Reply
CFNRc	Call Forwarding on Not Reachable
CFU	Call Forwarding Unconditional
CLIP	Calling Line Identification Presentation
CLIR	Calling/Connected Line Identification Restriction
COLP	Connected Line Identification Presentation
CR	Call Report
CRT	Call Retention
CRV	Call Retention Value
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
TPI	Talking Party Identification

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## 4 SS-CRT stage 1 specification

### 4.1 Description

#### 4.1.1 General description

Call Retention (SS-CRT) is a supplementary service that allows the protection of calls against pre-emption. SS-CRT enables the user to define a relative level of call protection, once established, against the probability of having the network connection resources pre-empted.

Every call in a Switching and Management Infrastructure (SwMI) shall be assigned a Call Retention Value (CRV), and, in the event that resources are required, the call with the lowest CRV, using the required resources, shall be pre-empted. Pre-emption of resources may be necessary because the resources are required by pre-emptive priority calls. In the event where all calls have the same CRV, another mechanism may be used to determine which resource to take e.g. oldest, type of call, user.

**NOTE:** The network operator may have to provide a correspondence between priority values and CRVs. This correspondence and the means to establish it are outside the scope of this ETS.

The served user may be either the calling user, the called user or both in the case of an individual call.

In the case of a group call, the called group may be assigned a CRV prior to call set-up; this value called group CRV will not be changed during the duration of the call; only the calling user outside the group may be able to change CRV for the call during that call.