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Zasebno telekomunikacijsko omrežje (PTN) – Specifikacija, funkcijski model in informacijski pretoki - Dopolnilna storitev: ne moti in razveljavi storitev ne moti

Private Telecommunication Network (PTN); Specification, functional models and information flows; Do not disturb and do not disturb override supplementary services

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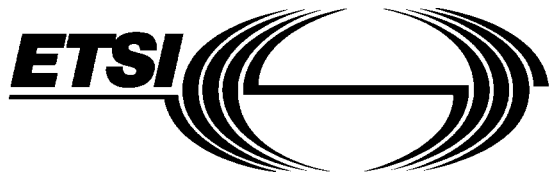
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Specification, functional model and information flows
Do not disturb and do not disturb override
supplementary services**

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Foreword

This European Telecommunication Standard (ETS) has been produced by the European Computer Manufacturers Association (ECMA) on behalf of its members and those of the European Telecommunications Standards Institute (ETSI).

This ETS is one of a series of standards defining services and signalling protocols applicable to Private Telecommunication Networks (PTNs). The series uses the ISDN concepts as developed by the ITU-T (formerly CCITT) and is also within the framework of standards for open systems interconnection as defined by ISO.

This ETS specifies the Do Not Disturb and Do Not Disturb Override supplementary services.

The ETS is based upon the practical experience of ECMA member companies and the results of their active and continuous participation in the work of ISO, ITU-T (formerly CCITT), ETSI and other international and national standardisation bodies. It represents a pragmatic and widely based consensus.

This ETS was produced by ECMA using the ECMA guidelines for the production of standards and using the ECMA stylesheet. In order to avoid undue delays in the approval process for this ETS it has been agreed that this ETS will not be converted to the ETSI stylesheet.

Transposition dates	
Date of latest announcement of this ETS (doa):	28 February 1995
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 August 1995
Date of withdrawal of any conflicting National Standard (dow):	31 August 1995

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1 Scope

This European Telecommunication Standard (ETS) specifies the Supplementary Services Do Not Disturb (SS-DND) and Do Not Disturb Override (SS-DNDO), which are applicable to basic services supported by Private Telecommunication Networks (PTNs). Basic services are specified in ETS 300 171.

SS-DND is a supplementary service which enables a served user to cause the PTN to reject any calls, or just those associated with a specified basic service, addressed to the served user's PTN number. The calling user is given an appropriate indication. Incoming calls are rejected as long as the service is active. The served user's outgoing service is unaffected.

SS-DNDO is a supplementary service which enables a served user to override SS-DND at a called user; that is, to allow the call to proceed as if the called user had not activated SS-DND.

SS-DND and SS-DNDO are described separately because SS-DND is a service used by a called user, and SS-DNDO is a service used by a calling user. This leads to describing two very related state machines.

NOTE 1

It is possible to implement SS-DND without implementing SS-DNDO.

Service specifications are produced in three stages, according to the method described in ETS 300 387. This ETS contains the stage 1 and stage 2 specifications of SS-DND and SS-DNDO. The stage 1 specifications (Clauses 6 and 7) specify the supplementary services as seen by the users of the PTNs. The stage 2 specifications (Clauses 8 and 9) identify the functional entities involved in the supplementary services and the information flows between them.

2 Conformance

In order to conform to this ETS, a stage 3 standard shall specify signalling protocols and equipment behaviour that are capable of being used in a PTN which supports the supplementary service specified in this ETS. This means that, to claim conformance, a stage 3 standard is required to be adequate for the support of those aspects of Clauses 6 to 9 which are relevant to the interface or equipment to which the stage 3 standard applies.

The stage 1 and stage 2 clauses which a stage 3 standard for the Do Not Disturb supplementary service is required to support are clauses 6 and 8.

The stage 1 and stage 2 clauses which a stage 3 standard for the Do Not Disturb Override supplementary service is required to support are clauses 7 and 9.

3 References

ETS 300 171	Private Telecommunication Network (PTN); Specification, functional model and information flows, Control aspects of circuit mode basic services (1993).
ETS 300 173	Private Telecommunication Network (PTN); Specification, functional model and information flows, Identification supplementary services (1993).
ETS 300 189	Private Telecommunication Network (PTN); Addressing (1993).
ETS 300 237	Private Telecommunication Network (PTN); Specification, functional model and information flows, Name identification supplementary services (1993).

ETS 300 256	Private Telecommunication Network (PTN); Specification, functional models and information flows Diversion supplementary services (1993).
ETS 300 258	Private Telecommunication Network (PTN); Specification, functional models and information flows Path replacement additional network feature (1993).
ETS 300 260	Private Telecommunication Network (PTN); Specification, functional models and information flows Call transfer supplementary service (1993).
ETS 300 361	Private Telecommunication Network (PTN); Specification, functional model and information flows Call offer supplementary service (1994).
ETS 300 365	Private Telecommunication Network (PTN); Specification, functional models and information flows Call completion supplementary services (1994).
ETS 300 387 the	Private Telecommunication Network (PTN); Method for the specification of basic and supplementary services (1994).
ENV 41007-1	Definition of terms in private telecommunication networks (1989).
CCITT Recommendation I.112	Vocabulary of terms for ISDNs (1988).
CCITT Recommendation I.210	Principles of telecommunication services supported by an ISDN and the means to describe them (1988).
CCITT Recommendation Z.100	Specification and description language (1988).

4 Definitions

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For the purpose of this ETS the following definitions apply.

4.1 External definitions

This ETS uses the following terms defined in other documents:

- Basic Service (CCITT Recommendation I.210);
- Calling party name (ETS 300 237);
- Connection (CCITT Recommendation I.112);
- Name (ETS 300 237);
- Number (ETS 300 189);
- Private (ENV 41007-1);
- Private Telecommunication Network Exchange (PTNX) (ENV 41007-1);
- Public (ENV 41007-1);
- Public ISDN (ENV 41007-1);
- Service (CCITT Recommendation I.112);
- Signalling (CCITT Recommendation I.112);
- Subaddress (ETS 300 189);
- Supplementary Service (CCITT Recommendation I.210);

- Telecommunication Network (ENV 41007-1);
- Terminal, Terminal equipment (ENV 41007-1);
- User (ETS 300 171).

This ETS refers to the following basic call Functional Entities (FEs) defined in ETS 300 171:

- Call Control (CC);
- Call Control Agent (CCA).

This ETS refers to the following basic call inter-FE relationships defined in ETS 300 171:

- r1;
- r2;
- r3.

This ETS refers to the following basic call information flows defined in ETS 300 171:

- CHAN ACK request/indication;
- DISCONNECT request/indication;
- RELEASE request/indication;
- RELEASE response/confirmation;
- REPORT request/indication;
- SETUP request/indication;
- SETUP response/confirmation.

This ETS refers to the following basic call information flow elements defined in ETS 300 171:

- Destination number;
- Connection type.

This ETS refers to the following information flow elements defined in ETS 300 173:

- Originating number; [SIST ETS 300 363 E1:2005](https://standards.iteh.ai/catalog/standards/sist/25546212-df6b-4b32-a4c4-d0bd24959f2a/sist-ets-300-363-e1-2005)
- Originating subaddress; <https://standards.iteh.ai/catalog/standards/sist/25546212-df6b-4b32-a4c4-d0bd24959f2a/sist-ets-300-363-e1-2005>

4.2 Additional network feature

A capability, over and above that of a basic service, provided by a PTN, but not directly to a PTN user.

4.3 Call, Basic call

An instance of the use of a basic service.

4.4 Consultation timer

A timer governing the time in which the calling user is allowed to request invocation of SS-DNDO after being informed that a call has failed because of SS-DND active at the destination. The duration of the timer is an implementation option.

4.5 Originating number

The number of the calling user.

4.6 Originating subaddress

The subaddress of the calling user.

4.7 Path retention

The retention of the network connection between the Originating CC and the Destination CC so that a supplementary service (such as SS-DNDO) can be invoked without establishing a new connection.

4.8 Served user

The user for which SS-DND is activated or deactivated, or for which SS-DND is invoked.

5 List of acronyms

ANF	Additional Network Feature
CC	Call Control (functional entity)
CCA	Call Control Agent (functional entity)
DNDOCL	DNDO Capability Level
DNDPL	DND Protection Level
FE	Functional Entity
ISDN	Integrated Services Digital Network
PR	Path Replacement
PTN	Private Telecommunication Network
PTNX	Private Telecommunication Network Exchange
SDL	Specification and Description Language
SS-CCBS	Call Completion to Busy Subscriber Supplementary Service
SS-CCNR	Call Completion on No Reply Supplementary Service
SS-CFB	Call Forwarding Busy Supplementary Service
SS-CFNR	Call Forwarding No Reply Supplementary Service
SS-CFU	Call Forwarding Unconditional Supplementary Service
SS-CI	Call Intrusion Supplementary Service
SS-CLIP	Calling Line Identification Presentation Supplementary Service
SS-CLIR	Calling/Connected Line Identification Restriction Supplementary Service
SS-CNIP	Calling Name Identification Presentation Supplementary Service
SS-CNIR	Calling/Connected Name Identification Restriction Supplementary Service
SS-CO	Call Offer Supplementary Service
SS-COLP	Connected Line Identification Presentation Supplementary Service
SS-CONP	Connected Name Identification Presentation Supplementary Service
SS-CT	Call Transfer Supplementary Service
SS-DND	Do Not Disturb Supplementary Service
SS-DNDO	Do Not Disturb Override Supplementary Service
SS-MSN	Multiple Subscriber Number Supplementary Service
TE	Terminal Equipment

6 SS-DND stage 1 specification

6.1 Description

6.1.1 General description

SS-DND is a supplementary service which enables a served user to cause the PTN to reject any calls, or just those associated with a specified basic service, addressed to the served user's PTN number. The calling user is given an appropriate indication. Incoming calls are rejected as long as the service is active. The served user's outgoing service is unaffected.

The related supplementary service Do Not Disturb Override allows a calling user to override Do Not Disturb, subject to service profiles.

The SS-DND service is provided on a PTN number.

For a given PTN number, this service (including options) may be subscribed to for each basic service to which the user of the number subscribes, or collectively for all the basic services to which the user subscribes.

6.1.2 Qualifications on applicability to telecommunication services

SS-DND is applicable to all circuit mode basic services defined in ETS 300 171.

6.2 Procedures

6.2.1 Provision/withdrawal

SS-DND is provided or withdrawn after pre-arrangement with the service provider.

SS-DND is provided on a per PTN number basis and per basic service basis. For each PTN number, the supplementary service can be subscribed to for all basic services subscribed to by that PTN number, or for only some of the basic services subscribed to by that PTN number.

SS-DND subscription parameters may apply separately to each basic service to which SS-DND is subscribed, or for all the basic services to which SS-DND is subscribed.

If SS-DND is implemented then the subscription parameter "DND protection level" (DNDPL) shall be provided. The DNDPL has a value in the range 0 to 3 where 0 means no protection against DNDO and 3 means total protection against DNDO. The values 0 and 3 shall be offered. The values 1 and 2 may, as an implementation option, be offered. The effect of the subscription parameter DNDPL shall be as described in subclause 6.3.10.

The subscription parameter "Served user notification of invocation of SS-DND" may be provided. If it is not provided, as an implementation option, the network may or may not notify the served user of DND invocation.

6.2.2 Normal procedures

6.2.2.1 Activation/deactivation/registration/interrogation

A PTN shall provide activation/deactivation by the served user (local activation/deactivation). In addition the PTN may provide activation/deactivation by another user (remote activation/deactivation).

Registration of information is performed on activation of SS-DND. There are no separate registration procedures.

A PTN may provide interrogation, which can be local, remote or both.