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Digitalno omrežje z integriranimi storitvami (ISDN) - Dopolnilna storitev: vel' gtevil'ni naro'nik (MSN) - Protokol digitalne naro'niške signalizacije gt. 1 (DSS1) - 1. del: Specifikacija protokola

Integrated Services Digital Network (ISDN); Multiple Subscriber Number (MSN) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Signalling Protocols and Switching (SPS).

The present document is part 1 of a multi-part standard covering the Digital Subscriber Signalling System No. one (DSS1) protocol specification for the Integrated Services Digital Network (ISDN) Multiple Subscriber Number (MSN) supplementary service, as described below:

Part 1: "Protocol specification";

Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification";

Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification for the user";

Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the user";

Part 5: "Test Suite Structure and Test Purposes (TSS&TP) specification for the network";

Part 6: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network".

In accordance with CCITT Recommendation I.130, the following three level structure is used to describe the supplementary telecommunications services as provided by European public telecommunications operators under the pan-European Integrated Services Digital Network (ISDN):

- Stage 1: is an overall service description, from the user's standpoint;
- Stage 2: identifies the functional capabilities and information flows needed to support the service described in stage 1; and
- Stage 3: defines the signalling system protocols and switching functions needed to implement the service described in stage 1.

The present document details the stage 3 aspects (signalling system protocols and switching functions) needed to support the Multiple Subscriber Number (MSN) supplementary service. The stage 1 and stage 2 aspects are detailed in ETS 300 050 and ETS 300 051, respectively.

The present version updates the references to the basic call specifications.

National transposition dates	
Date of adoption of this EN:	19 June 1998
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Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 1999
Date of withdrawal of any conflicting National Standard (dow):	31 March 1999

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1 Scope

This first part of EN 300 052 specifies the stage three of the Multiple Subscriber Number (MSN) supplementary service for the pan-European Integrated Services Digital Network (ISDN) as provided by European public telecommunications operators at the T reference point or coincident S and T reference point (as defined in CCITT Recommendation I.411 [1]) by means of the Digital Subscriber Signalling System No. one (DSS1). Stage three identifies the protocol procedures and switching functions needed to support a telecommunications service (see CCITT Recommendation I.130 [2]).

In addition, the present document specifies the protocol requirements at the T reference point where the service is provided to the user via a private ISDN.

The present document does not specify the additional protocol requirements where the service is provided to the user via a telecommunications network that is not an ISDN.

The MSN supplementary service provides the possibility for assigning multiple numbers to a single public or private access.

NOTE: This allows e.g.:

- 1) a calling user to select, via the public network, one or multiple distinct terminals out of a multiple choice;
- 2) to identify the terminal to the network for the application of other supplementary services.

It is considered:

- that in the case of a basic access some service providers may not have knowledge or control over what is connected, e.g. a private ISDN or a terminal configuration;
- that service providers have differing numbering methods.

The MSN supplementary service is applicable to all telecommunication services.

Further parts of the present document specify the method of testing required to identify conformance to the present document.

The present document is applicable to equipment, supporting the MSN supplementary service, to be attached at either side of a T reference point or coincident S and T reference point when used as an access to the public ISDN.

2 Normative references

References may be made to:

- a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or
- b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or
- c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or
- d) publications without mention of a specific version, in which case the latest version applies.

A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] CCITT Recommendation I.411 (1988): "ISDN user-network interfaces - Reference configurations".

- [2] CCITT Recommendation I.130 (1988): "Method for the characterisation of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [3] EN 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".
- [4] EN 300 195-1: "Integrated Services Digital Network (ISDN); Supplementary service interactions; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [5] EN 300 403-2: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 2: Specification and Description Language (SDL) diagrams".
- [6] CCITT Recommendation I.112: "Vocabulary of terms for ISDNs".
- [7] CCITT Recommendation E.164: "Numbering plan for the ISDN era".
- [8] CCITT Recommendation I.210: "Principles of telecommunication services supported by an ISDN and the means to describe them".
- [9] EN 300 092-1: "Integrated Services Digital Network (ISDN); Calling Line Identification Presentation (CLIP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

3 Definitions

For the purposes of the present document, the following definitions apply:

Integrated Services Digital Network (ISDN): See CCITT Recommendation I.112 [6], § 2.3, definition 308.

network: The DSS1 protocol entity at the network side of the user-network interface.

user: The DSS1 protocol entity at the user side of the user-network interface.

service; telecommunications service: See CCITT Recommendation I.112 [6], § 2.2, definition 201.

special arrangement: See EN 300 092-1 [9], clause 3.

supplementary service: See CCITT Recommendation I.210 [8], § 2.4.

ISDN number: A number conforming to the numbering plan and structure specified in CCITT Recommendation E.164 [7].

international number: An ISDN number structured as specified in § 3.2 (in the paragraphs relating to international number) of CCITT Recommendation E.164 [7].

national number; national significant number: An ISDN number structured as specified in § 3.2 (in the paragraphs relating to national significant number) of CCITT Recommendation E.164 [7].

subscriber number: An ISDN number structured as specified in § 3.2 (in the paragraphs relating to subscriber number) of CCITT Recommendation E.164 [7].

multiple subscriber number: An ISDN number as part of a set of ISDN numbers assigned to a user which shall be either:

- the whole ISDN number; or
- a part of the ISDN number (the least significant "n" digit(s) where "n" may be a number up to the full length of the ISDN number and shall be a number large enough to allow all terminals on an access to be assigned an individual number).

NOTE: National or international prefixes cannot form part of the multiple subscriber number.