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**Omrežni vidiki (NA) – Nepovezavna širokopasovna podatkovna storitev (CBDS) –
2. del: Definicija osnovne nosilne storitve**

Network Aspects (NA); Connectionless Broadband Data Service (CBDS); Part 2: Basic bearer service definition

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Foreword

This part of European Telecommunication Standard (ETS) 300 217 has been prepared by the Network Aspects (NA) Technical Committee of the European Telecommunications Standards Institute (ETSI).

According to CCITT Recommendation I.130, the following three level structure is used to describe the characterisation of telecommunication services:

- 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;
- Stage 3: defines the signalling system protocols and switching functions needed to implement the service described in stage 1.

This ETS details the stage 1 aspects for the Connectionless Broadband Data Service (CBDS).

This part constitutes Part 2 of the 4 part ETS on the CBDS, and defines the basic bearer service.

A list of informative references is given in Annex B.

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1 Scope

This part of European Telecommunication Standard (ETS) 300 217 on the Connectionless Broadband Data Service (CBDS), describes the stage 1 of the switched bearer service provided via Metropolitan Area Networks (MANs) and/or an Asynchronous Transfer Mode (ATM) based network. It is applicable to both the public and private environment whereas special attention is paid to the requirements of the public operators.

This bearer service category provides a means by which Protocol Data Units (PDUs) of variable, but limited length, are delimited and transparently transferred across one source interface to one or more destination interface(s) at the T reference point, without establishing or later releasing a connection between source and destination.

Charging principles are outside the scope of this ETS.

Whilst this bearer service category is aiming primarily at Local Area Network (LAN) interconnections, other uses are envisaged.

2 Normative references

This ETS incorporates, by dated or 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] CCITT Recommendation E.164 (1991): "Numbering plan for the ISDN era".
- [2] ISO/IEC 8802-3 (1990): "Information processing systems - Local area networks - Part 3: Carrier sense multiple access with collision detection (CSMA/CD) - access method and physical layer specifications".
- [3] ISO/IEC 8802-5 (1991): "Information processing systems - Local area networks - Part 5: Token ring access method and physical layer specifications".
- [4] IEEE 802.6 (1990): "Distributed Queue Dual Bus (DQDB) subnetwork of a metropolitan area network (MAN)".
- [5] CCITT Recommendation I.140 (1988): "Attribute technique for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [6] ETS 300 217-1 (1992): "Network Aspects (NA); Connectionless Broadband Data Service (CBDS) Part 1: Overview".
- [7] ISO 9314: "Fiber Distributed Data Interface (FDDI)".

3 Definitions and abbreviations

3.1 Definitions

The definitions used in this ETS are given in Part 1, subclause 3.1 of this ETS, ETS 300 217-1 [6].

3.2 Abbreviations

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

AAL	ATM Adaptation Layer
ATM	Asynchronous Transfer Mode
CBDS	Connectionless Broadband Data Service
CCITT	International Telegraph and Telephone Consultative Committee
DQDB	Distributed Queue Dual Bus
HDLC	High level Data Link Control
LAN	Local Area Network
LAPB	Link Access Procedure Balanced
LAPD	Link Access Procedure on the D-channel
LLC	Logical Link Control
MAC	Media Access Control
MAN	Metropolitan Area Network
MIR	Maximum Information Rate
PDU	Protocol Data Unit
PLCP	Physical Layer Convergence Procedure
QOS	Quality of Service
SIR	Sustained Information Rate
T	T reference point
UMI	User MAN Interface
UNI	User Network Interface
USI	User Specific Interface

4 Description

This bearer service category can be provided by any network but can more suitably be provided by MANs and ATM-based networks. It primarily aims at interconnecting LANs and/or terminals over metropolitan or wide areas.

The service can be provided by making use of different interfaces (User Specific Interface (USI), User MAN Interface (UMI) or User Network Interface (UNI)).

Associated with this bearer service category are Quality of Service (QOS) parameters. Parameter values for which options are explicitly mentioned may be negotiated between parties in the subscriber and service provider domains respectively.

The service may be provided by direct access via high-speed end systems or by means of bridges or routers using the connectionless service mode.

For the UMI and UNI interfaces each user can be addressed by at least one CCITT Recommendation E.164 [1] number. When publicly administered, one USI is identified by only one CCITT Recommendation E.164 [1] number.

5 Procedures

5.1 Provision and withdrawal

The provision of the service shall be by pre-arrangement with the service provider.

The service provider may not provide either all service options and supplementary services listed in this ETS or the full range of features in a particular option e.g. available access classes. This ETS is a compendium list and specific options shall be defined on subscription.

The bearer service is offered with several subscription options which apply separately to each interface at the T reference point.

5.1.1 Subscriber options

The subscriber can choose different subscriber options. For each subscriber option one value can be selected.

The provision of any specific subscriber options and related values within those defined in this subclause depends on the choice of the service provider.

5.1.1.1 Access rate

The service can be provided making use of different interfaces, i.e. the USI, UMI or the UNI. Different access rates are foreseen for the UMI:

- 2,048 Mbit/s;
- 34,368 Mbit/s;
- 139,264 Mbit/s;
- 155,520 Mbit/s.

The following access rates are foreseen for the UNI:

- 155,520 Mbit/s;
- 622,080 Mbit/s.

Further access rates may be considered according to ETSI or CCITT standardisation.

The following access rates are foreseen for the USI:

- 4 Mbit/s;
- 10 Mbit/s;
- 16 Mbit/s;
- 100 Mbit/s.