



SLOVENSKI STANDARD
SIST ETS 300 467 E1:2003

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Širokopasovno digitalno omrežje z integriranimi storitvami (B-ISDN) – Nosilna storitev blokovnega posredovanja (FRBS) v B-ISDN in meddelovanje sistema B-ISDN z drugimi omrežji

Broadband Integrated Services Digital Network (B-ISDN); Support of Frame Relay Bearer Service (FRBS) in B-ISDN and frame relay interworking between B-ISDN and other networks

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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.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 Network Aspects (NA) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This European Telecommunication Standard (ETS) defines the B-ISDN architectural configuration for providing the FRBS service.

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Date of adoption of this ETS:	20 February 1998
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1 Scope

This ETS defines the Broadband Integrated Services Digital Network (B-ISDN) architectural configuration for providing the Frame Relay Bearer Service (FRBS) service.

B-ISDN FRBS is defined in ETS 300 399-1 [5] and ETS 300 399-4 [8].

This ETS specifies service specific convergence sublayer of AAL type 5 and its use for B-ISDN FRBS.

The B-ISDN FRBS belongs is a connection-oriented, variable bit rate, non assured operation broadband services with no timing relation between the sender and receiver.

This ETS also describes the network interworking between B-ISDNs supporting FRBS and other ISDNs and Public Data Networks (PDNs) supporting FRBS as defined in ETS 300 399-1 [5], ETS 300 399-2 [6] and ETS 300 399-3 [7].

It describes also access configurations to networks supporting FRBS or FRDTS.

This ETS defines only the U-plane procedures for FRBS supported on Permanent Virtual Connections (PVCs).

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] ETS 300 298-2: "Broadband Integrated Services Digital Network (B-ISDN); Asynchronous Transfer Mode (ATM); Part 2: B-ISDN ATM layer specification [ITU-T Recommendation I.361, (1995)]".
- [2] ETS 300 299: "Broadband Integrated Services Digital Network (B-ISDN); Cell based user network access for 155 520 kbit/s and 622 080 kbit/s; Physical layer interfaces for B-ISDN applications".
- [3] ETS 300 300: "Broadband Integrated Services Digital Network (B-ISDN); Synchronous Digital Hierarchy (SDH) based user network access; Physical layer User Network Interfaces (UNI) for 155 520 kbit/s and 622 080 kbit/s Asynchronous Transfer Mode (ATM) B-ISDN applications".
- [4] ETS 300 337: "Transmission and Multiplexing (TM); Generic frame structures for the transport of various signals (including Asynchronous Transfer Mode (ATM) cells and Synchronous Digital Hierarchy (SDH) elements) at the ITU-T Recommendation G.702 hierarchical rates of 2 048 kbit/s, 34 368 kbit/s and 139 264 kbit/s".
- [5] ETS 300 399-1: "Frame relay services; Part 1: General description".
- [6] ETS 300 399-2: "Frame relay services; Part 2: Integrated Services Digital Network (ISDN); Frame relay bearer service; Service definition".
- [7] ETS 300 399-3: "Frame relay services; Part 3: Frame relay data transmission service; Service definition".
- [8] ETS 300 399-4: "Frame relay services; Part 4: Broadband Integrated Services Digital Network (B-ISDN); Frame relay bearer service; Service definition".
- [9] ETS 300 428: "Broadband Integrated Services Digital Network (B-ISDN); Asynchronous Transfer Mode (ATM) Adaptation Layer (AAL) specification - type 5".

- [10] ETS 300 455-1: "Broadband Integrated Services Digital Network (B-ISDN); Broadband Virtual Path Service (BVPS); Part 1: BVPS for Permanent communications (BVPS-P)".
- [11] ETS 300 455-2: "Broadband Integrated Services Digital Network (B-ISDN); Broadband Virtual Path Service (BVPS); Part 2: BVPS for Reserved communications (BVPS-R)".
- [12] ITU-T Recommendation F.811 (1993): "Broadband connection-oriented bearer service".
- [13] ITU-T Recommendation G.804 (1994): "ATM cell mapping into plesiochronous digital hierarchy (PDH)".
- [14] ITU-T Recommendation G.832 (1994): "Transport of SDH elements on PDH networks - Frame and multiplexing structures".
- [15] CCITT Recommendation I.233.1 (1992): "ISDN frame relaying bearer service".
- [16] ITU-T Recommendation I.363 (1994): "B-ISDN ATM Adaptation Layer (AAL) specification".
- [17] ITU-T Recommendation I.365.1 (1994): "Frame relaying service specific convergence sublayer (FR-SSCS)".
- [18] CCITT Recommendation I.370 (1992): "Congestion management for the ISDN frame relaying bearer service".
- [19] ETS 300 301, Edition 2 (1997): "Broadband Integrated Services Digital Network (B-ISDN); Traffic control and congestion control in B-ISDN [ITU-T Recommendation I.371 (1996)]".
- [20] ITU-T Recommendation I.372 (1993): "Frame relaying bearer service network-to-network interface requirements".
- [21] ITU-T Recommendation I.555 (1994): "Frame relaying bearer service interworking".
- [22] CCITT Recommendation Q.922 (1992): "ISDN data link layer specification for frame mode bearer services".
- [23] ITU-T Recommendation Q.933 (1994): "Digital Subscriber Signalling System No.1 (DSS1) - Signalling specification for frame mode basic call control".
- [24] ITU-T Recommendation I.327 (1993): "B-ISDN functional architecture".

3 Abbreviations

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

AAL	ATM Adaptation Layer
AAL5	AAL type 5
ATM	Asynchronous Transfer Mode
ATM-VCC	Asynchronous Transfer Mode-Virtual Circuit Connection
B-ISDN	Broadband Integrated Services Digital Network
B-TE	B-ISDN Terminal
BECN	Backward Explicit Congestion Notification
BVPS	Broadband Virtual Path Service
C/R	Command/Response bit
CBR	Constant Bit Rate
CEB	Congestion Encountered Backward
CEF	Congestion Encountered Forward

CI	Congestion Indication
CPCS	Common Part Convergence Sublayer
CPCS-CI	CPCS - Congestion Indication
CPCS-LP	CPCS - Loss Priority
CPCS-UU	CPCS - User-to-User Indication
D/C	DLCI or DL-CORE control indicator
DE	Discard Eligibility
DLCI	Data Link Connection Identifier
DSS1	Digital Subscriber Signalling N°1
DTE	Data Terminal Equipment
EA	Address Extension bit
FCS	Frame Check Sequence
FECN	Forward Explicit Congestion Notification
FR	Frame Relay
FR-BNNI	Frame Relay Broadband Network-to-Network Interface
FR-IWP	Frame Relay Interworking Point
FR-SSCS	Frame Relay Service Specific Convergence Sublayer
FR-BAI	Frame Relay Broadband Access Interface
FR-IAI	Frame Relay ISDN Access Interface
FR-INNI	Frame Relay ISDN Network to Network Interface
FR-PAI	Frame Relay Private Access Interface
FR-PNNI	Frame Relay Private Network to Network Interface
FRBS	Frame Relay Bearer Service
FRDTS	Frame Relay Data Transmission Service
FRSF	Frame Relay Service Function
ID	Interface Data
ISDN	Integrated Service Digital Network
IWF	Interworking Function
LME	Layer Management Entity
LSB	Least Significant Bit
MSB	Most Significant Bit
NNI	Network Node Interface
PCI	Protocol Control Information
PDH	Plesiochronous Digital Hierarchy
PDN	Public Data Network
PDU	Protocol Data Unit
PHY	Physical layer
PISN	Private Integrated Service Network
PVC	Permanent Virtual Connection
SAP	Service Access Point
SAR	Segmentation and Reassembly Sublayer
SDH	Synchronous Digital Hierarchy
SDU	Service Data Unit
SSCS	Service Specific Convergence Sublayer
TE	Terminal Equipment
UNI	User Network Interface
UPC	Usage Parameter Control
VBR	Variable Bit Rate
VC	Virtual Channel
VCC	Virtual Channel Connection
VCI	Virtual Channel Identifier
VP	Virtual Path
VPC	Virtual Path Connection
VPI	Virtual Path Identifier

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