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Digitalni celiļ ni telekomunikacijski sistem (faza 2+) ï Nosilne storitve (BS), ki jih podpira javno kopensko mobilno omreģje (PLMN) sistema GSM (GSM 02.20, razliļ ica 6.1.1, izdaja 1997)

Digital cellular telecommunications system (Phase 2+) (GSM); Bearer Services (BS) supported by a GSM Public Land Mobile Network (PLMN) (GSM 02.02 version 6.1.1 Release 1997)

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Digital cellular telecommunications system (Phase 2+); Bearer Services (BS) supported by a GSM Public Land Mobile Network (PLMN) (GSM 02.02 version 6.1.1 Release 1997)

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Contents

Intellectual Property Rights 4

Foreword 4

0 Scope 5
0.1 References 5
0.2 Abbreviations 6

1 Framework for defining Bearer Services 6

2 Bearer Service categories 8

3 Bearer Services 9
3.1 General bearer service user data characteristics 11
3.1.1 3,1 kHz Audio 11
3.1.2 V.110 UDI 11
3.1.3 X.31 Flag Stuffing UDI 12
3.1.4 V.120 12
3.1.5 Bit Transparent Mode 12

Annex A (informative): Change history 13

History 14

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Foreword

This Euopean Standard (Telecommunications series) has been produced by the Special Mobile Group (SMG).

The present document defines a set of Bearer Services to be provided within the digital cellular telecommunications system.

The contents of the present document is subject to continuing work within SMG and may change following formal SMG approval. Should SMG modify the contents of the present document it will be re-released with an identifying change of release date and an increase in version number as follows:

Version 6.x.y

where:

6 indicates Release 1997 of GSM Phase 2+

x the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

y the third digit is incremented when editorial only changes have been incorporated in the specification.

Proposed national transposition dates	
Date of adoption of this EN:	27 August 1999
Date of latest announcement of this EN (doa):	30 November 1999
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 May 2000
Date of withdrawal of any conflicting National Standard (dow):	31 May 2000

The specification from which the present document has been derived was originally based on CEPT documentation, hence the presentation of the present document may not be entirely in accordance with the ETSI drafting rules.

0 Scope

The present document defines a set of Bearer Services to be provided to GSM PLMN subscribers by a GSM PLMN itself and in connection with other networks. The present document should also be used as a reference for defining the corresponding required mobile network capabilities which are specified by means of the "GSM PLMN connection type" concept, defined in GSM 03.10 [4].

The recommended provision of the Bearer Services is under the control of the GSM MoU and is out of the scope of ETSI TC-SMG.

Bearer Services not included in the present document that require modifications to the GSM signalling specifications should not be introduced unilaterally by a mobile network operator.

0.1 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, 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] GSM 01.04: "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".

[2] GSM 02.01: "Digital cellular telecommunications system (Phase 2+); Principles of telecommunication services supported by a GSM Public Land Mobile Network (PLMN)".

[3] GSM 02.04: "Digital cellular telecommunications system (Phase 2+); General on supplementary services".

[4] GSM 03.10: "Digital cellular telecommunications system (Phase 2+); GSM Public Land Mobile Network (PLMN) connection types".

[5] GSM 04.02: "Digital cellular telecommunications system (Phase 2+); GSM Public Land Mobile Network (PLMN) access reference configuration".

[6] GSM 07.01: "Digital cellular telecommunications system (Phase 2+); General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)".

[7] GSM 07.02: "Digital cellular telecommunications system (Phase 2+); Terminal Adaptation Functions (TAF) for services using asynchronous bearer capabilities".

[8] GSM 07.03: "Digital cellular telecommunications system (Phase 2+); Terminal Adaptation Functions (TAF) for services using synchronous bearer capabilities".

[9] GSM 07.05: "Digital cellular telecommunications system (Phase 2+); Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE - DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)".

[10] GSM 09.02: "Digital cellular telecommunications system (Phase 2+); Mobile Application Part (MAP) specification".

[11] GSM 09.03: "Digital cellular telecommunications system; Signalling requirements on interworking between the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN) and the Public Land Mobile Network (PLMN)".

[12] GSM 09.04: "Digital cellular telecommunications system; Interworking between the Public Land Mobile Network (PLMN) and the Circuit Switched Public Data Network (CSPDN)".

[13] GSM 09.05: "Digital cellular telecommunications system; Interworking between the Public Land Mobile Network (PLMN) and the Packet Switched Public Data Network (PSPDN) for Packet Assembly/Disassembly facility (PAD) access".

[14] GSM 09.06: "Digital cellular telecommunications system (Phase 2+); Interworking between a Public Land Mobile Network (PLMN) and a Packet Switched Public Data Network/Integrated Services Digital Network (PSPDN/ISDN) for the support of packet switched data transmission services".

[15] GSM 09.07: "Digital cellular telecommunications system (Phase 2+); General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".

[16] GSM 09.10: "Digital cellular telecommunications system (Phase 2+); Information element mapping between Mobile Station - Base Station System and BSS - Mobile-services Switching Centre (MS - BSS - MSC) Signalling procedures and the Mobile Application Part (MAP)".

[17] GSM 09.11: "Digital cellular telecommunications system (Phase 2+); Signalling interworking for supplementary services".

[18] CCITT Recommendation V.120: "Support by an ISDN of data terminal equipments with V-series type interface with provision for statistical multiplexing".

[19] GSM 02.60: "Digital cellular telecommunications system (Phase 2+);General Packet Radio Service (GPRS); Service description; Stage 1"

[20] GSM 07.60: "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Mobile Station (MS) supporting GPRS"

[21] GSM 09.60: "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp Interface"

0.2 Abbreviations

Abbreviations used in the present document are listed in GSM 01.04 [1].

1 Framework for defining Bearer Services

Bearer Services are described by attributes, which are intended to be independent. These attributes are described and defined in GSM 02.01 [2]. They are grouped into four categories:

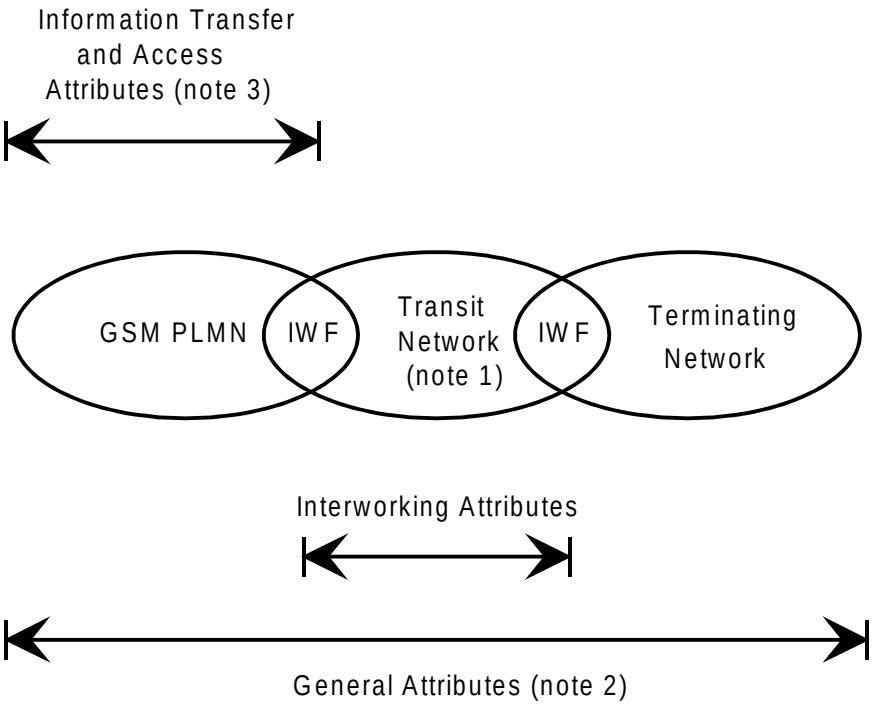
i) Information transfer attributes, which characterize the network capabilities for transferring information from a user access point in a GSM PLMN to a user access point in another network. (Refer to GSM 02.01 [2] and GSM 04.02 [5] for definitions of user access points, originating and terminating networks).

ii) Access attributes, which describe the means for accessing network functions or facilities as seen at the access point in the PLMN (see GSM 02.01 [2]).

iii) Interworking attributes, which describe properties of the terminating network and its access point. The terminating network may include another GSM PLMN or the originating PLMN (see GSM 02.01 [2]).

iv) General attributes, which deal with the service in general.

Figure 1 shows the relation between the groups of attributes and their fields of applicability.



NOTE 1: A transit network may not exist for a Bearer Service.
NOTE 2: Communication may be established from either end.
NOTE 3: The information transfer and access attributes of a Bearer Service relate to a direct peer-to-peer communication of:
- TE to TE;
- TE to a network gateway (supporting, for example, PSTN interworking); or
- network gateway to a TE.

Figure 1: Relation between the groups of attributes and fields of applicability

The following table lists the individual attributes in each of the four groups. The GSM Bearer Service definitions in the present documentation are based on the "Minimal Set" of attributes.

Table 1: List of Bearer Service attributes

	Minimal Set
Information Transfer Attributes	
Information Transfer Mode	X
Information Transfer Rate	X
Information Transfer Capability	X
Establishment of Communication	X
Symmetry	X
Communication Configuration	X
Data Compression	
Access Attributes	
Access Channel and Rate	
Signalling Access Protocols	
Information Access Protocols	
Information Access Structure	X
Information Access Rate	X
Interworking Attributes	
General Attributes	
Supplementary Services Provided	
Quality of Service	X
Operational and Commercial	

Attributes that are not part of the minimal set provide further technical detail and are required to fully define the use of each Bearer Service.

General Packet Radio Service (GPRS) is specified in GSM 02.60 [19].