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Digital cellular telecommunications system (Phase 2) (GSM); Signalling interworking for supplementary services (GSM 09.11)

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ICS:

33.070.50	Globalni sistem za mobilno telekomunikacijo (GSM)	Global System for Mobile Communication (GSM)
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**Digital cellular telecommunications system (Phase 2);
Signalling interworking for supplementary services
(GSM 09.11)**

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Special Mobile Group (SMG) Technical Committee (TC) of the European Telecommunications Standards Institute (ETSI).

This ETS provides a detailed specification for interworking between the A-interface protocol and the Mobile Application Part (MAP) for handling of supplementary services within the Digital cellular telecommunications system (Phase 2).

This ETS corresponds to GSM technical specification GSM 09.11 version 4.6.1.

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

Reference is made within this ETS to GSM-TSs (note).

Reference is also made within this ETS to GSM xx.xx series. The specifications in the series can be identified, with their full title, within the normative reference clause of this ETS by the first two digits of their GSM reference number e.g. GSM 09.xx series, refers to GSM 09.01, GSM 09.02, etc.

NOTE: TC-SMG has produced documents which give the technical specifications for the implementation of the digital cellular telecommunications system. Historically, these documents have been identified as GSM Technical Specifications (GSM-TSs). These TSs may have subsequently become I-ETSs (Phase 1), or ETSs (Phase 2), whilst others may become ETSI Technical Reports (ETRs). GSM-TSs are, for editorial reasons, still referred to in current GSM ETSs.

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1 Scope

This European Telecommunication Standard (ETS) provides a detailed specification for interworking between the A-interface protocol and the Mobile Application Part for handling of supplementary services. The MAP interfaces of interest are the B-, C-, D- and E-interfaces.

The A-, C-, D- and E-interfaces are physical interfaces while the B-interface is an internal interface defined for modelling purposes. Information relating to the modelling interface is not normative in this ETS.

Supplementary service signalling may be passed by the MSC/VLR between the A- and E-interfaces after inter-MSC handover. This procedure is transparent as far as supplementary services are concerned therefore interworking concerning this process is not described in this ETS.

Clause 2 describes general procedures for interworking between the A- and D- physical interfaces.

Clause 3 describes the general procedures for the SS version negotiation.

Clause 4 describes the mapping of layer 3 radio path messages with Transaction Capabilities (TC) transaction sublayer messages for interworking between the A- and D- physical interfaces.

Clause 5 describes specific interworking procedures for all interfaces relating to call related SS activity.

Clause 6 describes specific interworking procedures for all interfaces relating to call independent SS activity. Clause 6 also covers the interworking between the MAP User (see GSM 09.02) and the SS handling functions of the network entities (see GSM 04.10 and 04.80).

Reference is made to the following Technical Specifications:

- GSM 02.04 and GSM 02.8x and GSM 02.9x-series,
for definition of supplementary services;
- GSM 03.11, GSM 03.8x and GSM 03.9x-series,
for technical realization of supplementary services;
- GSM 04.10, GSM 04.80, GSM 04.8x and GSM 04.9x-series,
for radio path signalling procedures for supplementary services;
- GSM 09.02 (MAP).

1.1 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] GSM 01.04 (ETR 100): "Digital cellular telecommunications system (Phase 2); Abbreviations and acronyms".
- [2] GSM 02.04 (ETS 300 503): "Digital cellular telecommunications system (Phase 2); General on supplementary services".
- [3] GSM 02.24 (ETS 300 510): "Digital cellular telecommunications system (Phase 2); Description of Charge Advice Information (CAI)".
- [4] GSM 02.81 (ETS 300 514): "Digital cellular telecommunications system (Phase 2); Line identification supplementary services - Stage 1".
- [5] GSM 02.82 (ETS 300 515): "Digital cellular telecommunications system (Phase 2); Call Forwarding (CF) supplementary services - Stage 1".
- [6] GSM 02.83 (ETS 300 516): "Digital cellular telecommunications system (Phase 2); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 1".
- [7] GSM 02.84 (ETS 300 517): "Digital cellular telecommunications system (Phase 2); Multi Party (MPTY) supplementary services - Stage 1".
- [8] GSM 02.85 (ETS 300 518): "Digital cellular telecommunications system (Phase 2); Closed User Group (CUG) supplementary services - Stage 1".
- [9] GSM 02.86 (ETS 300 519): "Digital cellular telecommunications system (Phase 2); Advice of Charge (AoC) supplementary services - Stage 1".
- [10] GSM 02.88 (ETS 300 520): "Digital cellular telecommunications system (Phase 2); Call Barring (CB) supplementary services - Stage 1".
- [11] GSM 02.90 (ETS 300 625): "Digital cellular telecommunications system (Phase 2); Unstructured Supplementary Service Data (USSD) - Stage 1".
- [12] GSM 03.11 (ETS 300 529): "Digital cellular telecommunications system (Phase 2); Technical realization of supplementary services".
- [13] GSM 03.81 (ETS 300 542): "Digital cellular telecommunications system (Phase 2); Line identification supplementary services - Stage 2".
- [14] GSM 03.82 (ETS 300 543): "Digital cellular telecommunications system (Phase 2); Call Forwarding (CF) supplementary services - Stage 2".
- [15] GSM 03.83 (ETS 300 544): "Digital cellular telecommunications system (Phase 2); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 2".

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- [16] GSM 03.84 (ETS 300 545): "Digital cellular telecommunications system (Phase 2); Multi Party (MPTY) supplementary services - Stage 2".
- [17] GSM 03.85 (ETS 300 546): "Digital cellular telecommunications system (Phase 2); Closed User Group (CUG) supplementary services - Stage 2".
- [18] GSM 03.86 (ETS 300 547): "Digital cellular telecommunications system (Phase 2); Advice of Charge (AoC) supplementary services - Stage 2".
- [19] GSM 03.88 (ETS 300 548): "Digital cellular telecommunications system (Phase 2); Call Barring (CB) supplementary services - Stage 2".
- [20] GSM 03.90 (ETS 300 549): "Digital cellular telecommunications system (Phase 2); Unstructured Supplementary Service Data (USSD) - Stage 2".
- [21] GSM 04.08 (ETS 300 557): "Digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3 specification".
- [22] GSM 04.10 (ETS 300 558): "Digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3; Supplementary services specification; General aspects".
- [23] GSM 04.80 (ETS 300 564): "Digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3 supplementary services specification; Formats and coding".
- [24] GSM 04.81 (ETS 300 565): "Digital cellular telecommunications system (Phase 2); Line identification supplementary services - Stage 3".
- [25] GSM 04.82 (ETS 300 566): "Digital cellular telecommunications system (Phase 2); Call Forwarding (CF) supplementary services - Stage 3".
- [26] GSM 04.83 (ETS 300 567): "Digital cellular telecommunications system (Phase 2); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 3".
- [27] GSM 04.84 (ETS 300 568): "Digital cellular telecommunications system (Phase 2); Multi Party (MPTY) supplementary services - Stage 3".
- [28] GSM 04.85 (ETS 300 569): "Digital cellular telecommunications system (Phase 2); Closed User Group (CUG) supplementary services - Stage 3".
- [29] GSM 04.86 (ETS 300 570): "Digital cellular telecommunications system (Phase 2); Advice of Charge (AoC) supplementary services - Stage 3".
- [30] GSM 04.88 (ETS 300 571): "Digital cellular telecommunications system (Phase 2); Call Barring (CB) supplementary services - Stage 3".
- [31] GSM 04.90 (ETS 300 572): "Digital cellular telecommunications system (Phase 2); Unstructured supplementary services operation - Stage 3".

- [32] GSM 09.02 (ETS 300 599): "Digital cellular telecommunications system (Phase 2); Mobile Application Part (MAP) specification".
- [33] GSM 09.10 (ETS 300 605): "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)".

1.2 Abbreviations

Abbreviations used in this ETS are listed in GSM 01.04.

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